

Draft Minutes
INCITS Fibre Channel (T11) Technical Committee regular meeting #114
6 December 2012 - 1 PM to 4 PM MST
Tucson, AZ

1 Opening remarks and Introductions

1.1 Introductory Remarks

TC T11 chair Steve Wilson (Brocade) convened regular meeting #114 of the INCITS Fibre Channel (T11) Technical Committee on Thursday, 6 December 2012 at 1:03 PM MST. He introduced himself, and thanked our host, FCIA and Chris Lyon, for the meeting facilities and amenities.

He next introduced Claudio DeSanti (Cisco) as vice chair Bill Martin (Emulex) as secretary.

1.2 Self-introductions

The chair requested those present to introduce themselves, with identification of the organizations they represent.

1.3 Operating under INCITS procedures

1.3.1 Patent information

The chair indicated that among the rules and policies under which this Technical Committee operates are the ANSI intellectual property policies as specified in pages 1-3 of http://www.incits.org/pat_slides.pdf. He displayed these pages without comment or explanation, and directed that questions about the policy should be referred to the questioner's legal counsel or the ANSI General Counsel.

1.3.2 Anti-trust guidelines

The chair indicated that among the rules and policies under which this Technical Committee operates are the INCITS Antitrust Guidelines as specified in <http://www.incits.org/inatrust.htm>. Any person present at 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.

1.3.3 Public access rules

The chair indicated that among the rules and policies under which this Technical Committee operates are the INCITS rules for operating in Public Access Mode, as specified in subclause 2.2 of INCITS Policies and Guidelines (http://www.incits.org/rd1/INCITS_RD1.pdf).

The chair encouraged those nonmembers who attend T11 meetings regularly or intend to attend T11 meetings regularly to join the organization. He further advised that nonmembers, by remaining in this meeting, acknowledge that they understand and agree to the policies of this meeting.

1.4 Attendance

The chair instructed those present how to register using the electronic attendance list for this meeting, found via the URL <http://www.t11.org/att>, and informed those present of the necessary password. He reminded those present that the electronic attendance list would become the only source of attendance for formal records of this meeting.

2 Approval of the Agenda

An electronic version of the agenda was posted as T11/12-436v2. The chair presented the agenda with final updates and made a call for any changes and new agenda items. No changes or new items were requested.

Lou Ricci (EMC) moved and Bill Martin (Emulex) seconded that T11/12-436v2 as presented at this meeting be approved as the agenda for this meeting. The motion passed by acclamation.

3 Attendance and Membership

3.1 Gaining and Losing Voting Membership

Information on how membership is gained, maintained, and lost in any INCITS Technical Committee or Task Group may be found in subclause 4.2 of INCITS Organization and Procedures (http://www.incits.org/rd2/INCITS_RD2.pdf). An overview of these requirements was introduced by the chair and was available to all attendees among the electronically distributed meeting documents.

The vice-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:

- IBM:
 - > Henry May added as Alternate for IBM
 - > Scott Carlson remains as Principal for IBM
 - > Roger Hathorn remains as Alternate for IBM
 - > Patty Driever remains as Alternate for IBM
- Molex:
 - > Mark Bugg added as Alternate for Molex
 - > Jay Neer remains as Principal for Molex

3.3 New voting memberships

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

3.4 Voting memberships in jeopardy for attendance

All representatives of member organizations Broadcom, Dell, and VMWare were informed by email and by document 12-429v0 that their organization was in jeopardy of losing their voting memberships as the result of not attending the required number of committee meetings.

- Representative Pat Thaler of Broadcom was present at this meeting. As a result, Broadcom retains voting membership in this committee.
- Representative Hiren Desai of Dell was present at this meeting. As a result, Dell retains voting membership in this committee.
- Representative Neil MacLean of VMware was present at this meeting. As a result, VMware retains voting membership in this committee.

3.5 Voting memberships in jeopardy for non-payment of dues

No organization was in jeopardy of losing its voting membership as the result of not having paid required fees in a timely manner.

3.6 Voting memberships in jeopardy for letter ballot performance

There were no letter ballots held since the prior meeting, and there are currently no organizations in jeopardy of losing voting membership as the result of not responding to the required number of letter ballots.

3.7 Membership for this meeting

Technical Committee T11 had 31 voting members at the T11 regular meeting 04 October 2012. With

- 0 new voting member organizations (see 3.3); and
- 0 voting member organizations losing voting membership for not attending the required number of meetings (see 3.4);

the voting membership of T11 has remained the same at 31 effective at this meeting.

Reflecting the above changes, the voting membership of T11 for this meeting is recorded in annex A.1.2.

Reflecting the above changes, the advisory (i.e., nonvoting) membership of T11 for this meeting is recorded in annex A.1.3.

3.8 Call for members of the press and journalists

The vice chair requested members of the press and journalists to introduce themselves.

Ralph Weber, principal representative of a T11 member organization, introduced himself as a journalist.

3.9 Call for Quorum

The total membership for this meeting is 31. One third of the total membership for this meeting is 11. The number of member organizations that responded to the call for quorum was 26. This exceeds or equals one third of the total membership for this meeting and also exceeds or equals 4. A quorum is therefore present for this meeting.

3.10 Call for Guests

The vice chair requested those associated with organizations that are not members of T11 to introduce themselves.

Representatives of nonmember organizations are tabulated in A.2.2. They were advised that by remaining in this meeting, they submit themselves and their organizations to INCITS policy for intellectual property, antitrust, and guest access to the work of this committee.

4 Document Distribution

The vice chair described the process for T11 document distribution via the T11 Web Site. He 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>), and that documents are also available at <ftp://ftp.t11.org/latest>.

5 Approval of Minutes - Meeting #113

The prior regular meeting of the INCITS Fibre Channel (T11) Technical Committee was #113 on 04 October 2012. The draft Minutes of that meeting were posted as document T11/12-407v0.

T11 minutes are reviewed as posted on the T11 web site. Corrections may be requested either before the subsequent meeting by email to the T11 secretary (bill.martin@emulex.com) or at the subsequent meeting in person.

The wording of the motion to approve SMIS v1.5 as a New Work Item Proposal was not correctly recorded.

Bill Martin (Emulex) moved and Fred Knight (NetApp) seconded to accept T11/12-407v1 (T11/12-407v0 as modified) as the Minutes of T11 meeting #113 on 04 October 2012. The motion passed by acclamation.

See action item 12-029.

6 Review of Old Action Items

- 08-044 International Representative to prepare a T11 style guide that resolves issues including description of the list enumeration style and multiplication symbol.
In process.
Status 4 October 2012: ISO representatives reviewed the preliminary style guide prepared by the IR in Geneva, and progress is being made.
- 09-009 Secretary to determine where T11 standing rules are, or should be, documented.
In Process.
Complete. Draft procedures will be in the T11Procs directory, Approved procedures will be in the T11Procs_Aproved directory. Roger Cummings working on the process for posting and viewing these.
- 09-010 Secretary to update standing rules, when the standing rules location is determined, to require every T11 Plenary meeting location be approved by a two-thirds vote (INCITS RD2/4.4.2.2) and that the proposer may request the result of the vote to be reconsidered by asking the T11 Chair to issue a letter ballot.
In Process, see T11/09-635 for the history and T11/12-513v0 for the proposal for next meeting.
- 09-011 T11 vice chair to modify the instructions to prospective hosts to reflect that every T11 Plenary meeting location shall be approved by a two-thirds vote (INCITS RD2/4.4.2.2) and that the proposer may request the result of the vote to be reconsidered by asking the T11 Chair to issue a letter ballot.
In Process pending completion of action 09-010.
- 09-045 T11 International Representative to review the admin/iso/ subdirectory of the T11 ftp server and advise the webmaster if anything should move to the protected directory.
In Process.
- 12-024 T11 Secretary to post approved Minutes of T11 meeting #113 as agreed at T11 meeting #114.
- 12-025 T11 International Representative to advise INCITS that INCITS TC T11 recommends to Confirm the following International Standards:
ISO/IEC TR 14165-117:2007 - Information technology -- Fibre Channel -- Part 117: Methodologies for jitter and signal quality (MJSQ); and
ISO/IEC 14165-331:2007 - Information technology -- Fibre Channel -- Part331: Virtual Interface (FC-VI)
- 12-026 T11 International Representative to advise INCITS that INCITS TC T11 recommends that the INCITS Executive Board approve the New Work Item Proposal for Storage Management Technical Specification v1.5 as a US contribution to JTC 1/SC 25 and name David Peterson as project editor.
- 12-027 T11 Vice-Chair to update the plenary week calendar with new meeting venues (see 19.4)
- 12-028 T11 chair to create appropriate liaison reports from T11 to other organizations.

7 Review of T11 Project and Proposal Status

7.1 Projects Proposals

There were no Project Proposals for approval

7.2 Project status review

The T11 Project status sheet was displayed (see annex C.1). The current version can be viewed at any time at www.t11.org, by selecting either member or guest access, then using the button "Projects".

The chair reminded all TG chairs to assure the project status sheet is maintained to reflect changes in status of their projects.

8 Results of non-ISO Letter Ballots

There were no non-ISO letter ballots since the last meeting.

9 Old Business

No old business was reopened.

10 Task Group T11.2 - Physical Interfaces

10.1 Report to T11 Plenary (T11/12-511v0)

Task Group chair Tom Palkert (Luxtera) presented the information posted as T11/12-511v0 on activity at T11.2.

10.2 Actions

There were no actions from TG T11.2.

10.3 Other items

No other items were presented for TG T11.2.

11 Task Group T11.3 - Interconnection Schemes

11.1 Report to T11 Plenary (T11/12-512v0)

Task Group chair Craig Carlson (QLogic) presented the information posted as T11/12-512v0 on activity at T11.3.

11.2 Actions

11.2.1 Request LB for forwarding FC-BB-6 (T11/12-007v3)

The T11.3 TG Chair requested the T11 Chair to perform a Letter Ballot for approval of forwarding Revision 1.2 of FC-BB-6 (T11/12-007v3), Project 2159-D, to INCITS for first public review.

The T11 Chair accepted. See action item 12-030.

11.3 Other items

No other items were presented for TG T11.3.

12 Joint T11.2/T11.3 Items

12.1 Report to T11 Plenary including FC-EE (T11/12-505v0)

The information from this report was presented as part of the T11.2 report.

12.2 Actions

There were no actions from the Joint T11.2/T11.3 working group.

12.3 Other items

No other items were presented for the Joint TG T11.2/T11.3.

13 T11 project activities

13.1 Work Group SM-HBA-2 (T11/12-497v0)

In the absence of Dave Peterson (Brocade), Ralph Weber (ENDL) presented status on the progress of the SM-HBA-2 work group on storage management application program interfaces, as posted in T11/12-497v0.

13.2 Request LB for forwarding SM-HBA-2 (T11/12-452v1)

The Ad Hoc Chair requested the T11 Chair to perform a Letter Ballot for approval of forwarding Revision 0.80 of SM-HBA-2 (T11/12-452v1), Project 1841-D, to INCITS for first public review.

The T11 Chair accepted. See action item 12-031.

14 Review of International Activity

14.1 ISO Status Report (T11/12-484v0)

David Peterson (Brocade) presented the information posted as T11/12-484v0 on project status at ISO (see annex C.2).

14.2 ISO Motions (none) (US roll call votes)

There were no ISO Motions.

15 T11 New Business and New Technical Item

15.1 National maintenance (T11/12-508v0)

Steve Wilson presented the standards that were up for review, and indicated that there would be motions related to these standards at the February plenary meeting.

16 Call for Patents

16.1 Patent information registry

Steve Wilson indicated that the current record of responses to prior calls for patents can be found in the T11 web site at <http://www.t11.org/t11/docreg.nsf/patentdoc?OpenView>.

16.2 Call for patents

16.2.1 Patent Information Overview

Steve Wilson reminded the meeting that among the rules and policies under which T11 operates are the INCITS intellectual property policies. An overview of patent information relevant to T11 may be found in T11/10-008v0.

16.2.2 INCITS/ISO patent disclosure form

A template form for a patent declaration that is satisfactory to both INCITS and ISO can be found in http://www.incits.org/patdec_form.doc.

17 Liaison Reports

17.1 T11 report (T11/12-430v0), INCITS Liaison, activities other than T11 project status (T11/12-458v0)

Steve Wilson (Brocade) presented the information posted as T11/12-430v0 on activity at T11 as reported to other organizations, and the information posted as T11/12-458v0 on activity at INCITS other than T11 project status.

The chair accepted the action to create appropriate liaison reports from T11 to other organizations. See action item 12-032.

17.2 TC T10 (T11/12-438v0)

T10 liaison John Lohmeyer (LSI Logic) presented the information posted as T11/12-438v0 on activity at INCITS Technical Committee T10.

17.3 FCIA (T11/12-501v0)

FCIA liaison Greg McSorley (Amphenol) presented the information posted as T11/12-501v0 on activity at FCIA.

17.4 IEEE 802.3 (T11/12-494v0)

The information posted as T11/12-494v0 on activity at IEEE 802.3. was presented at the T11.2 plenary and not repeated here.

17.5 IETF (none)

No report was presented on activity at IETF.

17.6 INCITS TC CS1 (T11/12-507v0)

INCITS Technical Committee CS1 liaison Eric Hibbard (HDS) presented the information posted as T11/12-507v0 on activity at INCITS Technical Committee CS1.

17.7 SNIA and DMTF (T11/12-510v0)

SNIA/DMTF liaison Craig Carlson (QLogic) presented the information posted as T11/12-510v0 on activity at SNIA and DMTF.

17.8 ISO/IEC JTC1 SC25 WG3 (none)

No report was presented on activity at ISO/IEC JTC1 SC25 WG3.

17.9 IBTA (none)

No report was presented on activity at IBTA.

17.10 Storage Performance Council (none)

No report was presented on activity at the Storage Performance Council

18 Administrative Matters

None

18.1 Officer Appointments

The officers of this Technical Committee and its Task Groups are:

| | |
|----------------------------------|---------------------------|
| T11 Chair | Steve Wilson (Brocade) |
| T11 International Representative | David Peterson (Brocade) |
| T11 Secretary | Bill Martin (Emulex) |
| T11 Vice chair | Claudio DeSanti (Cisco) |
| T11.2 Chair | Tom Palkert (Luxtera) |
| T11.2 Secretary | Richard Johnson (Finisar) |
| T11.2 Vice-chair | Dean Wallace (QLogic) |
| T11.3 Chair | Craig Carlson (QLogic) |
| T11.3 Secretary | Landon Noll (Cisco) |
| T11.3 Vice-chair | Bill Martin (Emulex) |

18.2 T11 Information Technology

18.2.1 Web site status (T11/12-460v0)

Roger Cummings presented the information on web site status in T11/12-460v0.

Dave Peterson presented information that the reflectors would collapse to one reflector t11.3 and t11.2 will alias to a single reflector. Roger Cummings will investigate incorporating the reflector on the T11 web site. See action item 12-034.

19 Future Meeting Schedule

19.1 Authorization of adhoc meetings

The chair directed members to the T11 web site at <http://www.t11.org/t11/meet.nsf/intmeet> for the latest announcements of pending work group interim meetings and teleconferences. He advised that authorization of ad hoc work group meetings is delegated to the appropriate TG, if any.

- The T11.2/T11.3 joint study group acts directly under authorization of TC T11. It requested meeting time 5:30 PM to 7:30 PM Wednesday at the T11 plenary week hosted by FCIA and Chris Lyon in Palm Springs, CA 4 - 8 February 2013.
- The SM-HBA-2 working group requested 2 hours at the T11 plenary week hosted by FCIA and Chris Lyon in Palm Springs, CA 4 - 8 February 2013.

The vice chair will account for these requests in the schedule for the T11 plenary week hosted by FCIA and Chris Lyon in Palm Springs, CA 4 - 8 February 2013.

19.2 Guidelines for hosting T11 meetings

The chair advised that important information for those considering hosting a T11 meeting week may be found on the T11 web site at <http://www.t11.org/t11/meet.nsf/host>. This information includes guidelines for hosting a T11 meeting week and room night histories of past meeting weeks. This is required reading for those who are considering hosting because it summarizes the needs of the committee for meeting facilities and gives considerations that may reduce costs for the host.

Groups arranging to meet with T11 were strongly advised to confirm with the host any changes in their needs for meeting space well before the meeting. Failure to do so could easily cause serious inconvenience to the host and/or the group.

19.3 Request for hosts - 2012-2014

The chair announced the following schedule for 2012-2014 meetings. He noted all dates through 2013 are hosted, and requested volunteer hosts for the 2014 meeting dates.

| | | | |
|----------------|-------------------|------|------------|
| Oct 1-5, 2012 | Boise, ID | FCIA | Chris Lyon |
| Dec 3-7, 2012 | Tucson, AZ | FCIA | Chris Lyon |
| Feb 4-8, 2013 | Palm Springs, CA | FCIA | Chris Lyon |
| Apr 8-12, 2013 | Albuquerque, NM | FCIA | Chris Lyon |
| Jun 3-7, 2013 | Coeur d'Alene, ID | FCIA | Chris Lyon |

| | | | |
|----------------|-----------------|------|------------|
| Aug 5-9, 2013 | Anchorage, AK | FCIA | Chris Lyon |
| Oct 7-11, 2013 | Duluth, MN | FCIA | Chris Lyon |
| Dec 2-6, 2013 | Austin, TX | FCIA | Chris Lyon |
| Feb 3-7, 2014 | New Orleans, LA | FCIA | Chris Lyon |
| Apr 7-11, 2014 | (tbd) | | |
| Jun 2-6, 2014 | (tbd) | | |
| Aug 4-8, 2014 | (tbd) | | |
| Oct 6-10, 2014 | Boise, ID | FCIA | Chris Lyon |
| Dec 1-5, 2014 | (tbd) | | |

19.4 Approval of meeting venues

19.4.1 Chicago August 2013

The previously approved venue of Anchorage, AK presented issues from the hotel, FCIA (Chris Lyon) has offered to sponsor the plenary meeting week in Chicago, IL 5 - 9 August 2013 instead of the previously approved venue.

19.4.2 Anchorage August 2014

The FCIA (Chris Lyon) has offered to sponsor a plenary meeting week in Anchorage, AK 4 - 8 August 2014. The offer for Chicago and Anchorage were linked.

Claudio DeSanti (Cisco) moved and Bill Martin (Emulex) seconded to accept the offer of the FCIA to sponsor a meeting week in Chicago, IL 5 - 9 August 2013 and a meeting week in Anchorage, AK 4 - 8 August 2014. In accord with T11 process, this motion requires a 2/3 meeting vote. The motion passed with 25 favoring, 0 opposing, 1 abstaining, 5 not voting.

The vice chair accepted the action to update the meeting calendar to reflect a plenary meeting week sponsored by the FCIA in Chicago, IL 5 - 9 August 2013 and a plenary meeting week sponsored by the FCIA in Anchorage, AK 4 - 8 August 2014. See 19.3. See action item 12-033.

19.5 Next meeting information, hosted by FCIA and Chris Lyon in Palm Springs, CA 4 - 8 February 2013

The chair reminded the membership that the next T11 plenary week is hosted by FCIA and Chris Lyon in Palm Springs, CA 4 - 8 February 2013. He noted that detailed information about the hotel and the locale can be found on the T11 web pages at [http://www.t11.org/t11/meet.nsf/sch/\\$first](http://www.t11.org/t11/meet.nsf/sch/$first).

19.6 Letter to travel representatives on hotel rates (T11/10-009v0)

The chair reminded the membership that

- T11 plenary meetings are hosted by volunteer organizations;
- A plenary host receives no reimbursement from T11 or INCITS for any expenses of hosting;
- A plenary host may depend on agreements with the meeting hotel in order to reduce the expenses of the host and also possibly, though not necessarily, reduce the room rates for the members; and
- A hotel may charge punitive extra fees to a host if the meeting does not achieve an agreed number of room nights identified with group members.

Therefore, T11 expects those attending meetings during a plenary week to stay at the meeting hotel and identify themselves as members of the T11 group, even though less expensive lodging may be found in the area, or even at the same hotel. Document T11/10-009v0 has been posted, which contains a letter to those with budget responsibilities for member organizations justifying this obligation.

19.7 Plenary week meeting map for February 2013 T11 meetings

The vice chair presented the tentative meeting map of the next T11 meeting week. He advised members to refer to the T11 web site, [http://www.t11.org/t11/docreg.nsf/umap/\\$first](http://www.t11.org/t11/docreg.nsf/umap/$first), for the most recent meeting map of the next T11 regular meeting.

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 source of attendance for formal records of this meeting.

Final registered attendance for T11 regular meeting #114 is shown in annex A.2. 41 people from 31 member organizations and 3 nonmember organizations were in attendance.

21 Review of Action Items

- 08-044 International Representative to prepare a T11 style guide that resolves issues including description of the list enumeration style and multiplication symbol.
In process.
Status 4 October 2012: ISO representatives reviewed the preliminary style guide prepared by the IR in Geneva, and progress is being made.
- 09-010 Secretary to update standing rules, when the standing rules location is determined, to require every T11 Plenary meeting location be approved by a two-thirds vote (INCITS RD2/4.4.2.2) and that the proposer may request the result of the vote to be reconsidered by asking the T11 Chair to issue a letter ballot.
In Process, see T11/09-635 for a proposal.
- 09-011 T11 vice chair to modify the instructions to prospective hosts to reflect that every T11 Plenary meeting location shall be approved by a two-thirds vote (INCITS RD2/4.4.2.2) and that the proposer may request the result of the vote to be reconsidered by asking the T11 Chair to issue a letter ballot.
In Process pending completion of action 09-010.
- 09-045 T11 International Representative to review the admin/iso/ subdirectory of the T11 ftp server and advise the webmaster if anything should move to the protected directory.
In Process.
- 12-029 T11 Secretary to post approved Minutes of T11 meeting #113 as agreed at T11 meeting #114.
- 12-030 T11 Chair to perform a Letter Ballot for approval of forwarding Revision 1.2 of FC-BB-6 (T11/12-007v3), Project 2159-D, to INCITS for first public review. See 11.2.1.
- 12-031 T11 Chair to perform a Letter Ballot for approval of forwarding Revision 0.80 of SM-HBA-2 (T11/12-452v1), Project 1841-D, to INCITS for first public review. See 13.2.
- 12-032 T11 chair to create appropriate liaison reports from T11 to other organizations.
Completed by document T11/12-430v0.
- 12-033 T11 Vice-Chair to update the plenary week calendar with new meeting venues (see 19.4). Completed.
- 12-034 Roger Cummings to look at hosting the T11 reflector on the T11 web site.

22 Adjournment

Greg McSorely (Amphenol) moved and Jay Neer (Molex) seconded to adjourn at 2:21 PM MST. The motion passed by acclamation.

Annex A Membership and Attendance

A.1 Membership for this meeting

A.1.1 Emeritus Members

These people have been granted Emeritus membership in INCITS Fibre Channel (T11) Technical Committee, recognizing their many years of skilled leadership and high quality technical contribution:

Mr. James Coomes

Dr. William Ham

Mr. Robert Kembel

Mr. Joseph Mathis

Mr. Schelto vanDoorn

Mr. Gary Stephens

Mr. Horst Truedstedt

A.1.2 Voting Members

The following is the list of organizations that are voting members of record for regular meeting #114 of the INCITS Fibre Channel (T11) Technical Committee, including the recognized representatives of each member organization:

| Organization | Representative Type | Representative |
|---------------------|----------------------------|-----------------------|
| Agilent | Principal | Joachim Vobis |
| | Alternate | Stephen Didde |
| | Alternate | Steve Sekel |
| Amphenol | Principal | Gregory McSorley |
| | Alternate | Michael Wingard |
| | Alternate | Alex Persaud |
| Avago | Principal | Randy Clark |
| | Alternate | David Cunningham |
| | Alternate | Brian Misek |

| Organization | Representative Type | Representative |
|--------------|---------------------|-------------------|
| Broadcom | Principal | Ali Ghiasi |
| | Alternate | Pat Thaler |
| Brocade | Principal | Steven L. Wilson |
| | Alternate | David Peterson |
| | Alternate | Scott Kipp |
| | Alternate | John Crandall |
| Cisco | Principal | Claudio DeSanti |
| | Alternate | Landon Noll |
| | Alternate | Fabio Maino |
| | Alternate | Joe Pelissier |
| Comscope | Principal | Richard Baca |
| | Alternate | Paul Kolesar |
| | Alternate | Joe Livingston |
| Corning | Principal | Doug Coleman |
| | Alternate | Steven E. Swanson |
| DCS | Principal | Kevin Ehringer |
| | Alternate | Jack Edwards |
| Dell | Principal | Hiren Desai |
| | Alternate | Gaurav Chawla |
| | Alternate | Brad Booth |
| EMC | Principal | Gary S. Robinson |
| | Alternate | David Black |
| | Alternate | Erik Smith |
| | Alternate | Louis Ricci |
| Emulex | Principal | William R. Martin |
| | Alternate | Hossein Hashemi |
| ENDL Texas | Principal | Ralph Weber |
| | Alternate | Dal Allan |
| Finisar | Principal | Chris Yien |
| | Alternate | Richard Johnson |

| Organization | Representative Type | Representative |
|--------------|---------------------|-------------------------------|
| Fujitsu | Principal | Sandy Wilson |
| | Alternate | Eugene Owens |
| | Alternate | Kun Katsumata |
| | Alternate | Jim DeCaires |
| | Alternate | Osamu Kimura |
| | Alternate | Mark Malcolm |
| Hitachi DS | Principal | Eric Hibbard |
| | Alternate | Vincent Franceschini |
| | Alternate | Michael Hay |
| HP | Principal | Barry Maskas |
| | Alternate | Krishna Babu Puttagunta |
| | Alternate | Rupin Mohan |
| | Alternate | Nadaraha (Nava) Navaruparajah |
| | Alternate | Siamack Ayandeh |
| IBM | Principal | Scott Carlson |
| | Alternate | Roger Hathorn |
| | Alternate | Henry May |
| | Alternate | Patty Driever |
| INTEL | Principal | Prafulla Deuskar |
| | Alternate | Mark Wunderlich |
| JDS Uniphase | Principal | Dave Lewis |
| | Alternate | Jason Rusch |
| | Alternate | Scott Baxter |
| | Alternate | Paul Gentieu |
| Juniper | Principal | Joseph White |
| | Alternate | Simon Gordon |
| LSI | Principal | Adam Healey |
| | Alternate | John Lohmeyer |
| | Alternate | Harvey Newman |
| Luxtera | Principal | Tom Palkert |

| Organization | Representative Type | Representative |
|--------------|---------------------|-----------------------|
| Molex | Principal | Jay Neer |
| NetApp | Principal | Frederick Knight |
| | Alternate | Denise Ridolfo |
| | Alternate | Heather Lanigan |
| Oclaro | Principal | Jon Anderson |
| Oracle | Principal | Roger Dickerson |
| | Alternate | Matt Gaffney |
| | Alternate | Michael Roy |
| Panduit | Principal | Robert Elliot |
| | Alternate | Jose Castro |
| | Alternate | Steve Skiest |
| | Alternate | Robert Reid |
| QLogic | Principal | Craig W. Carlson |
| | Alternate | Skip Jones |
| | Alternate | Alan Spalding |
| | Alternate | Dean Wallace |
| | Alternate | Ed McGlaughlin |
| TE | Principal | Kim Whitman |
| | Alternate | Andrew Nowak |
| | Alternate | Michael Fogg |
| VMware | Principal | Neil MacLean |
| | Alternate | Sandeep Uttamchandani |
| | Alternate | Lawrence Lamers |

A.1.3 Advisory Members

The following is the list of organizations that are advisory (i.e., nonvoting) members of record for regular meeting #114 of the INCITS Fibre Channel (T11) Technical Committee, including the recognized representatives of each member organization:

| Organization | Representative Type | Representative |
|---------------------|---------------------|------------------|
| Crossroads Systems | Principal | Bill Moody |
| DSI A*STAR | Principal | Khin Mi Mi Aung |
| FCI | Principal | Miguel Conde |
| | Alternate | David Sideck |
| Futurewei | Principal | Serge Manning |
| | Alternate | Xiaoyu Ge |
| | Alternate | Xiaoyan He |
| | Alternate | Jincheng Li |
| Liberty Intl | Principal | Phil Zuniga |
| Mellanox | Principal | Diego Crupnicoff |
| | Alternate | Trevor Caulder |
| | Alternate | Dror Goldenberg |
| Microsoft | Principal | Steve Olsson |
| | Alternate | Calvin Chen |
| | Alternate | James Borden |
| | Alternate | Paul Luber |
| Pegatron | Principal | Michael Hsu |
| Solution Technology | Principal | David Deming |
| | Alternate | David Deming Jr |
| Teradyne | Principal | Eracar Yonet |
| Texas Instruments | Principal | Rajeev Jain |
| | Alternate | Stephen Hubbins |

| Organization | Representative Type | Representative |
|---------------------|---------------------|-----------------|
| Unisys | Principal | Jeffrey Dremann |
| | Alternate | Diep Nguyen |
| | Alternate | Jose Macias |
| | Alternate | Phil Shelton |
| Virtual Instruments | Principal | Skip Bacon |

A.2 Attendance at this meeting

A.2.1 Member organizations

The following is the list of member organizations and their representatives recorded in the online attendance registry as attending regular meeting #114 of the INCITS Fibre Channel (T11) Technical Committee:

| Organization | Representative(s) |
|----------------------------|-------------------------|
| AGILENT TECHNOLOGIES, INC. | Steve Sekel |
| AMPHENOL INTERCONNECT | Gregory McSorley |
| BROADCOM | Pat Thaler |
| BROCADE | David Peterson |
| BROCADE | Steven L. Wilson |
| CISCO SYSTEMS, INC. | Claudio DeSanti |
| CORNING INC. | Doug Coleman |
| DELL | Hiren Desai |
| EMC | Erik Smith |
| EMC | Louis Ricci |
| EMULEX | Hossein Hashemi |
| EMULEX | William R. Martin |
| ENDL TEXAS | Ralph Weber |
| FINISAR CORPORATION | Richard Johnson |
| HEWLETT PACKARD CO. | Krishna Babu Puttagunta |
| HITACHI DATA SYSTEMS | Eric Hibbard |
| IBM | Roger Hathorn |
| IBM | Scott Carlson |

| Organization | Representative(s) |
|---------------------|--------------------------|
| INTEL CORP | Mark Wunderlich |
| JDSU | Jason Rusch |
| JUNIPER | Joseph White |
| LSI CORP. | John Lohmeyer |
| NETAPP | Frederick Knight |
| OCLARO, INC. | Jon Anderson |
| ORACLE | Roger Dickerson |
| QLOGIC CORP. | Craig W. Carlson |
| SYSTIMAX/COMMSCOPE | Richard Baca |
| TE CONNECTIVITY | Michael Fogg |
| VMWARE | Neil MacLean |

A.2.2 Nonmember organizations

The following is the list of nonmember organizations and their representatives recorded in the online attendance registry as attending regular meeting #114 of the INCITS Fibre Channel (T11) Technical Committee:

| Organization | Representative(s) |
|---------------------|--------------------------|
| FCIA | Chris Lyon |
| SELF | Roger Cummings |

Annex B Roll Call Vote Tallies

There were no roll calls

Annex C Supporting Documents

C.1 T11 project status

The following table indicates the status of all active T11 projects. It reflects the official status as reported on the T11 web site as of the T11 regular meeting 6 December 2012.

| Standard | Status | Action | Target or Reaffirm Date | Editor | Ad Hoc Chair |
|-------------------------------|----------|---------------|-------------------------|----------|--------------|
| Projects in Development Stage | | | | | |
| FC-BB-6 | In dev. | To T11.3 | Dec-12 | Peterson | DeSanti |
| FC-EE | At T11 | To T11 | Oct-12 | | Wallace |
| FC-FS-4 | In dev. | To T11.3 | Jun-13 | Martin | Peterson |
| FC-GS-7 | in Dev. | T11 LB to fwd | Feb-13 | Carlson | Ricci |
| FC-LS-3 | In dev. | To T11.3 | Jun-13 | Carlson | Martin |
| FC-MSQS-2 | In dev. | To T11.2 LB | Feb-13 | Johnson | Wallace |
| FC-PI-6 | In dev. | T11.2 LB | Feb-13 | Hashemi | Wallace |
| FC-SB-5 | In Dev | To T11.3 | Dec-12 | Carlson | Hathorn |
| FC-SW-6 | At T11.3 | To T11.3 | Jun-12 | Wilson | Carlson |
| SM-HBA-2 | In dev. | To T11 | Dec-12 | Lanigan | Peterson |

C.2 T11 project status at ISO

The following tables indicates the status of all active T11 projects at ISO. It reflects the official status as reported at the T11 regular meeting #114, 6 December 2012 in document T11/12-484v0.

C.2.1 Active T11 SC25 WG4 Projects

| JTC1/SC25 Project | Document | ISO/IEC # (T11 allocated) | Step | Status |
|-------------------|------------|---------------------------|-------|--|
| 1.25.13.13.49 | FC-AE-ASM | 14165-313 | 40.60 | Should be published soon. |
| 1.25.13.13.50 | FC-AE-RDMA | 14165-314 | 40.60 | Should be published soon. |
| 1.25.13.13.45 | FC-BaseT | 14165-151 | 30.99 | Sent response to ISO/IEC comments. |
| 1.25.13.13.30 | FC-BB-3 | 14165-243 | 40.99 | Should be published soon. |
| 1.25.13.13.46 | FC-DA | 14165-341 | 40.20 | FCD submitted 4/6/2010. |
| 1.25.13.13.X | FC-SW-5 | 14165-135 | 10.99 | Need ISO version. |
| 1.25.13.13.X | FC-GS-6 | 14165-416 | 10.99 | Need ISO version. |
| 1.25.13.13.X | FC-BB-5 | 14165-245 | 10.99 | Need ISO version. FC-BB-5 Am1 is now complete. |

C.2.2 Active SNIA SC25 WG4 Projects

| JTC1/SC25 Project Num | Document | ISO/IEC # | Step | Status |
|--|------------|-----------|------|--|
| Need ISO version. FC-BB-5 Am1 is now complete. | SMI-S v1.5 | 24775 | | NWIP and CDs (8 Parts) submitted to SC 25 today. |

C.2.3 Active Miscellaneous WG4 Projects

| JTC1/SC25 Project Num | Document | ISO/IEC # (T11 allocated) | Step | Status |
|-----------------------|----------|---------------------------|------|--------|
| | | | | |

C.2.4 Published WG4 Projects

| JTC1/SC25 Project Num | Document | ISO/IEC # | Step | Status |
|-----------------------|--|-------------|-------|------------|
| 1.25.13.22 | Server Management Command Line Protocol (SM-CLP) | 13187 | 60.60 | Published |
| 1.25.13.19.01 | Storage Management | 24775 | 60.60 | Published |
| 1.25.13.13.47 | FC-MI-2 | 14165-372 | 60.60 | Published |
| 1.25.13.21 | iSCSI Management API (IMA) | 11989 | 60.60 | Published |
| 1.25.13.13.25 | FC-SW-3 | 14165-133 | 60.60 | Published |
| 1.25.13.13.18 | FC-AV | 14165-321 | 60.60 | Published. |
| 1.25.13.13.19 | FC-AE-1553 | 14165-312 | 60.60 | Published. |
| 1.25.13.13.29 | FAIS | 14165-521 | 60.60 | Published. |
| 1.25.13.13.15 | FC-GS-4 | 14165-414 | 60.60 | Published |
| 1.25.13.13.22 | FC-FS | 14165-251 | 60.60 | Published |
| 1.25.13.13.26 | FC-VI | 14165-331 | 60.60 | Published |
| 1.25.13.13.27 | 10GFC | 14165-116 | 60.60 | Published |
| 1.15.13.13.28 | MJSQ | 14165-117 | 60.60 | Published |
| 1.25.13.10.18 | RL | 24740 | 60.60 | Published |
| 1.25.13.19 | SMS (was SMI-S) | 24775 | 60.60 | Published |
| 1.25.13.20 | SNIA MMA | 11002 | 60.60 | Published |
| 1.25.13.13.27-1 | 10GFC-Amendment 1 | 14165-116-1 | 60.60 | Published |
| 1.25.13.13.06-1 | FC-AL-2-1 | 14165-122 | 60.60 | Published. |
| 1.25.13.13.06-2 | FC-AL-2-2 | 14165-122 | 60.60 | Published |

C.2.5 ISO step codes

The following explains the ISO step codes (ISC), which are two numbers separated by a dot. The first number is described in the table. The second part is percent complete.

| Stage | NWIP | Convert to ISO | FCD | Edit/DoC | FDIS | Edit/DoC | Publish |
|---------------------|----------|----------------|----------|----------|----------|----------|---------|
| Ballot Time | 2 months | | 4 months | | 2 months | | |
| first number of ISC | 10 | 20 | 40 | | 50 | 60 | 60.60 |