

**Draft Minutes**  
**INCITS Fibre Channel (T11) Technical Committee regular meeting #116**  
**11 April 2013 - 1 PM to 4 PM MDT**  
**Albuquerque, NM**

## **1 Opening remarks and Introductions**

### **1.1 Introductory Remarks**

TC T11 chair Steve Wilson (Brocade) convened regular meeting #116 of the INCITS Fibre Channel (T11) Technical Committee on Thursday, 11 April 2013 at 1:10 PM MDT. 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 (not in attendance for this meeting) and Richard Johnson (Finisar) 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](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](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 T11/13-108v2. 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.

Louis Ricci (EMC) moved and Landon Noll (Cisco) seconded that T11/13-108v2 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](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 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:

- G. Mabud Choudhury replaces Richard Baca as Principal for Commscope. Richard Baca becomes Alternate. Richard Case is added as Alternate. Joe Livingston and Paul Kolesar remain as Alternates for Commscope.
- Simon Gordon has been removed as Alternate for Juniper. Joseph White remains as Principal.

### **3.3 New voting memberships**

The following organizations have regained their voting member status:

- Luxtera

- Panduit

### **3.4 Voting memberships in jeopardy for attendance**

The following organizations have lost voting membership as the result of not attending the required number of meetings:

- Hitachi DS
- VMware

### **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**

No organization has lost voting membership for not voting in any of the last three T11 ballots.

### **3.7 Membership for this meeting**

Technical Committee T11 had 28 voting members at the T11 regular meeting 07 February 2013. With

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

the voting membership of T11 remains at 28 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 chair requested members of the press and journalists to introduce themselves.

No person attending the meeting made such an introduction.

### **3.9 Call for Quorum**

The total membership for this meeting is 28. One third of the total membership for this meeting is 10. The number of member organizations that responded to the call for quorum was 22. 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 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 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 #115**

The prior regular meeting of the INCITS Fibre Channel (T11) Technical Committee was #115 on 07 February 2013. The draft Minutes of that meeting were posted as document T11/13-082v1.

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 ([richard.johnson@finisar.com](mailto:richard.johnson@finisar.com)) or at the subsequent meeting in person. The chair noted that the document number of the posted minutes was incorrect (v0 instead of v1). This was subsequently corrected with document revision v2.

Sandy Wilson (Fujitsu) moved and Landon Noll (Cisco) seconded to accept T11/13-082v2 (T11/13-082v1 as modified) as the Minutes of T11 meeting #115 on 07 February 2013. The motion passed by acclamation.

See action item 13-041.

## 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 as of 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\_Approved 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 to 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/so/ subdirectory of the T11 ftp server and advise the webmaster if anything should move to the protected directory.  
In process.
- 13-035 T11 Secretary to post approved Minutes of T11 meeting #114 as agreed at T11 meeting #115. Completed: see T11/13-082v1.
- 13-036 T11 Chair to forward Revision 0.82 of SM-HBA-2 (T11/13-023v1), INCITS BSR 508, to INCITS for further processing and public review. Completed: see T11/13-107v0.
- 13-037 IR to notify INCITS that TC T11 recommends the NWIP (see T11/12-439v0) for Storage Management Technical Specification version 1.5 as a US contribution to JTC1/SC25 and to approve the NWIP to be issued by SC25, answering the first six questions specified in table 1 'Yes' and naming David Peterson as project editor, and question 7 in table 1 as "Accelerated Timeframe". Completed: see T11/13-100v0.
- 13-038 IR to notify INCITS of the motion to withdraw FC-FS. Reason for withdrawal: FC-FS is superseded by FC-FS-2. Completed: see T11/13-099v0.
- 13-039 T11 Chair to notify INCITS of T11'2 National Maintenance recommendations.  
Completed: see T11/13-103v0.
- 13-040 T11 chair to create appropriate liaison reports from T11 to other organizations.  
Completed: see T11/13-106v0.

## 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](http://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 letter ballots for this plenary cycle.

## **9 Old Business**

No old business was reopened.

## **10 Task Group T11.2 - Physical Interfaces**

### **10.1 Report to T11 Plenary (T11/13-182v0)**

Task Group chair Tom Palkert (Luxtera) presented the information posted as T11/13-182v0 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 (T11/13-181v0)**

Task Group chair Craig Carlson (QLogic) presented the information posted as T11/13-181v0 on activity at T11.3.

### **11.2 Actions**

#### **11.2.1 Forward FC-SB-5 Rev. 2.0 to INCITS for first public review**

After resolving all the comments presented in response to the letter ballot, the members previously opposed, EMC and Emulex, were contacted by telephone, email, or in person. These members indicated that they were satisfied with the comment resolution and would change their vote from opposed to in favor.

Craig Carlson (QLogic) moved and Dave Peterson (Brocade) seconded to move that T11 accept FC-SB-5 Rev. 2.0 (T11/13-117v0) along with letter ballot comment databases T11/13-071v1 and T11/13-075v1 as resolution of comments received on letter ballot for FC-SB-5 Rev. 1.00 (T11/12-203v0), and forward T11/Project 2245-D for further processing including public review.

INCITS RD-2 requires approval of this question in accord with the 2/3 rule. The motion met the 2/3 rule with a show of hands vote, with 19 Favoring, 0 Opposing, 0 Abstaining, 9 Not Voting.

See action item 13-042.

### **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 (T11/13-171v0)**

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**

None given this plenary cycle.

## **14 Review of International Activity**

### **14.1 ISO Status Report (T11/13-156v0)**

Dave Peterson (Brocade) presented the information posted as T11/13-156v0 on project status at ISO (see annex C.2).

### **14.2 ISO Motions (US roll call votes)**

No ISO motions were considered during this plenary cycle.

## **15 T11 New Business and New Technical Items**

No new business was introduced during this plenary meeting cycle.

## **16 Call for Patents**

### **16.1 Patent information registry**

The chair 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**

The chair 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](http://www.incits.org/patdec_form.doc).

## **17 Liaison Reports**

### **17.1 T11 report (T11/13-106v0), INCITS Liaison, activities other than T11 project status (T11/13-142v0)**

Steve Wilson (Brocade) presented the information posted as T11/13-106v0 on activity at T11 as reported to other organizations, and the information posted as T11/13-142v0 on activity at INCITS other than T11 project status.

### **17.2 TC T10 (T11/13-116v0)**

Bill Martin (self) presented the information posted as T11/13-116v0 on activity at INCITS Technical Committee T10.

### **17.3 FCIA (T11/13-180v0)**

FCIA liaison Greg McSorley (Amphenol) presented the information posted as T11/13-180v0 on activity at FCIA.

### **17.4 IEEE 802.3 (T11/13-160v0)**

Tom Palkert (Luxtera) presented the information posted as T11/13-160v0 on activity at IEEE 802.3.

### **17.5 IETF (none)**

No report was presented on activity at IETF.

### **17.6 INCITS TC CS1 (T11/13-170v0)**

Steve Wilson (Brocade) gave the report posted as T11/13-170v0 on activity at INCITS Technical Committee CS1.

### **17.7 SNIA and DMTF (T11/13-178v0)**

Fred Knight (Netapp) presented the information posted as T11/13-178v0 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.

## 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                    | Richard Johnson (Finisar) |
| 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                 | Erik Smith (EMC)          |

### 18.2 T11 Information Technology

#### 18.2.1 Web site status (T11/13-163v0)

The chair presented the information on web site status in T11/13-163v0.

## 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 vice chair will account for these requests in the schedule for the T11 plenary week hosted by FCIA and Chris Lyon in Coeur d'Alene, ID, 3 - 7 June 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 - 2014**

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

|                |                 |      |            |
|----------------|-----------------|------|------------|
| Aug 5-9, 2013  | Chicago, IL     | 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  | Anchorage, AK   | FCIA | Chris Lyon |
| Oct 6-10, 2014 | Boise, ID       | FCIA | Chris Lyon |
| Dec 1-5, 2014  | (tbd)           |      |            |

### **19.4 Approval of meeting venues**

Landon Noll (Cisco) moved and Louis Ricci (EMC) seconded a motion to approve the following meeting venues:

- April 2014: Phoenix, AZ
- June 2014: Philadelphia, PA
- December 2014: Saint Petersburg, FL

Vote was taken by hand: 15 Favoring, 0 Opposing, 0 Abstaining, 13 Not Voting.

Fred Knight (Netapp) requested a straw vote on whether he should explore the possibility of Bangalore, India, as a possible future meeting venue. Vote was taken by hand: 8 Favoring, 5 Opposing.

### **19.5 Next meeting information, hosted by FCIA and Chris Lyon in Coeur d'Alene, ID, 3 - 7 June 2013**

The chair reminded the membership that the next T11 plenary week is hosted by FCIA and Chris Lyon in Coeur d'Alene, ID, 3 - 7 June 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 Junel 2013 T11 meetings**

The 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. Landon Noll (Cisco) moved and Jack Edwards (DCS) seconded a motion to approve the meeting map as presented. Motion passed by acclamation.

### **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 #116 is shown in annex A.2. 26 people from 22 member organizations and 1 nonmember organization 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 as of 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\_Approved 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 to 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/so/ subdirectory of the T11 ftp server and advise the webmaster if anything should move to the protected directory.  
In process.
- 13-041 T11 Secretary to post approved Minutes of T11 meeting #115 as agreed at T11 meeting #116.
- 13-042 T11 Chair to forward Revision 2.0 of FC-SB-5 (T11/13-117v0), INCITS Project 2245-D, to INCITS for further processing and public review (see 11.2).
- 13-043 T11 Vic Chair to exchange Jack Edwards as Principal for DCS and Kevin Ehringer as Alternate.

## 22 Adjournment

Greg McSorley (Amphenol) moved and Jay Neer (Molex) seconded to adjourn at 2:06 PM MDT. 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 Truededt**

#### **A.1.2 Voting Members**

The following is the list of organizations that are voting members of record for regular meeting #116 of the INCITS Fibre Channel (T11) Technical Committee, including the recognized representatives of each member organization:

| <b>Organization</b> | <b>Representative Type</b> | <b>Representative</b> |
|---------------------|----------------------------|-----------------------|
| 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      |
| Commscope    | Principal           | G. Mabud Choudhury |
|              | Alternate           | Richard Baca       |
|              | Alternate           | Richard Case       |
|              | 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           | Gautam Shiroor     |
|              | Alternate           | David Baldwin      |
|              | Alternate           | Hossein Hashemi    |

| Organization | Representative Type | Representative                |
|--------------|---------------------|-------------------------------|
| Finisar      | Principal           | Chris Yien                    |
|              | Alternate           | Richard Johnson               |
| Fujitsu      | Principal           | Sandy Wilson                  |
|              | Alternate           | Eugene Owens                  |
|              | Alternate           | Kun Katsumata                 |
|              | Alternate           | Jim DeCaires                  |
|              | Alternate           | Osamu Kimura                  |
|              | Alternate           | Mark Malcolm                  |
| 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                  |
| LSI          | Principal           | Adam Healey                   |
|              | Alternate           | John Lohmeyer                 |
|              | Alternate           | Harvey Newman                 |
| Luxtera      | Principal           | Tom Palkert                   |
| Molex        | Principal           | Jay Neer                      |
|              | Alternate           | Mark Bugg                     |

| Organization | Representative Type | Representative   |
|--------------|---------------------|------------------|
| 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     |



### A.1.3 Advisory Members

The following is the list of organizations that are advisory (i.e., nonvoting) members of record for regular meeting #116 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          |
| Hitachi DS          | Principal           | Eric Hibbard         |
|                     | Alternate           | Vincent Franceschini |
|                     | Alternate           | Michael Hay          |
| 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            |
| VMware              | Principal           | Neil MacLean          |
|                     | Alternate           | Sandeep Uttamchandani |
|                     | Alternate           | Lawrence Lamers       |

## 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 #116 of the INCITS Fibre Channel (T11) Technical Committee:

| Organization          | Representative(s)  |
|-----------------------|--------------------|
| AMPHENOL INTERCONNECT | Gregory McSorley   |
| BROADCOM              | Pat Thaler         |
| BROCADE               | Steven L. Wilson   |
|                       | David Peterson     |
| CISCO SYSTEMS, INC.   | Landon Noll        |
| COMMSCOPE             | D. Mabud Choudhury |
|                       | Jack Jewell        |
| Corning               | Doug Coleman       |
| DCS                   | Jack Edwards       |
| EMC                   | Erik Smith         |
|                       | Louis Ricci        |
| EMULEX                | Gautam Shiroor     |
| FINISAR CORPORATION   | Richard Johnson    |
| FUJITSU               | Sandy Wilson       |
| HEWLETT PACKARD CO.   | Barry Maskas       |

| Organization        | Representative(s) |
|---------------------|-------------------|
| IBM                 | Patty Driever     |
|                     | Roger Hathorn     |
| INTEL               | Prafulla Deuskar  |
| JDS UNIPHASE        | Dave Lewis        |
| JUNIPER             | Joseph White      |
| LUXTERA             | Tom Palkert       |
| MOLEX               | Jay Neer          |
| NETAPP              | Frederick Knight  |
| PANDUIT             | Jose Castro       |
| QLOGIC CORP.        | Craig W. Carlson  |
| SOLUTION TECHNOLOGY | David Deming      |

### 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 #116 of the INCITS Fibre Channel (T11) Technical Committee:

| Organization | Representative(s) |
|--------------|-------------------|
| SELF         | William R. Martin |

## **Annex B Roll Call Vote Tallies**

No roll call votes were held during this plenary cycle.

## 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 11 April 2013.

| Standard                      | Status    | Action        | Target or Reaffirm Date | Editor   | Ad Hoc Chair |
|-------------------------------|-----------|---------------|-------------------------|----------|--------------|
| Projects in Development Stage |           |               |                         |          |              |
| FC-EE                         | At T11    | To T11        | Oct-12                  |          | Wallace      |
| FC-FS-4                       | In dev.   | To T11.3      | Jun-13                  | Carlson  | Peterson     |
| FC-GS-7                       | in Dev.   | T11 LB to fwd | Feb-13                  | Rusch    | Ricci        |
| FC-LS-3                       | In dev.   | To T11.3      | Jun-13                  | Carlson  | Ricci        |
| 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                       | T11.3 LB  | To T11        | Dec-12                  | Carlson  | Hathorn      |
| FC-SW-6                       | At T11.3  | To T11.3      | Jun-12                  | Wilson   | Carlson      |
| Projects in Approval Stage    |           |               |                         |          |              |
| FC-BB-6                       | At T11    | To INCITS     | Jun-13                  | Peterson | DeSanti      |
| FC-SB-5                       | At T11    | To INCITS     | Apr-13                  | Carlson  | Hathorn      |
| SM-HBA-2                      | At INCITS | End 1PR       | Apr-13                  | 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 #116, 11 April 2013 in document T11/13-156v0.

### 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. |

### C.2.2 Active SNIA/DMTF SC25 WG4 Projects

| JTC1/SC25 Project Num | Document   | ISO/IEC # | Step  | Status                                |
|-----------------------|------------|-----------|-------|---------------------------------------|
| 1.25.13.19.x          | SMI-S v1.5 | 24775     | 10.99 | NWIP and CDs (8 Parts) were approved. |

### 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     |
|-----------------------|--|-----------|-------|------------|
| 1.25.13.13.30         | FC-BB-3  | 14165-243 | 60.60 | Published  |
| 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  |

| JTC1/SC25<br>Project Num | Document              | ISO/IEC #   | Step  | Status     |
|--------------------------|-----------------------|-------------|-------|------------|
| 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-Amendme<br>nt 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<br>ISO | FCD      | Edit/DoC | FDIS     | Edit/DoC | Publish |
|------------------------|----------|-------------------|----------|----------|----------|----------|---------|
| Ballot Time            | 2 months |                   | 4 months |          | 2 months |          |         |
| first number<br>of ISC | 10       | 20                | 40       |          | 50       | 60       | 60.60   |