T11-2021-00225-v000

**Draft Minutes
INCITS Fibre Channel (T11) Technical Committee
Regular Meeting #166
19 August 2021 – 1 PM to 3 PM MDT
Santa Fe, NM (Hybrid Meeting)**

# 1 Opening Remarks and Introductions

## 1.1 Introductory Remarks

TC T11 chair Steve Wilson (Broadcom) convened regular meeting #166 of the INCITS Fibre Channel (T11) Technical Committee on Thursday, 18 August 2021 at 1:03 PM MDT. He introduced himself and thanked our hosts Broadcom for the physical meeting facilities and Marvell for the virtual meeting facilities.

He next introduced Vice-Chair Craig Carlson (Marvell) and Patty Driever (IBM) as secretary.

## 1.2 Self-introductions

The chair indicated that those present are visible on the Zoom meeting, so we did not do formal introductions.

## 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 INCITS patent policy slides available from http://www.incits.org/standards-information/legal-info.
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 Antitrust 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/standards-information/legal-info. Any person present at the meeting is responsible for objecting if he believes discussion in the meeting violates those guide- lines. 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 Code of Conduct
The chair reminded everyone that we are operating under the INCITS Code of Conduct (found at https://www.incits.org/standards-information/policies). The General Principles of this code include:
  - Respect others
  - Behave ethically
  - Escalate and resolve disputes
  - Work for the net benefit of the community
  - Uphold consensus and governance
  - Agree to a clear purpose and scope
  - Participate actively and manage effective participation

### 1.3.4 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 Section 3.11 of INCITS Organization, Policies, and Procedures (found at http://www.incits.org).

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://standards.incits.org/login. He reminded those present that both the electronic attendance list and physical presence at the meeting will be required to qualify as attendance for formal records of this meeting.

## 2 Approval of the Agenda

An electronic version of the agenda was posted as T11-2021-00197-v001. The chair presented the agenda with final updates as T11-2021-00197-v002 and made a call for any changes and new agenda items. No changes or new items were requested.

Howard Johnson (Broadcom) moved and Greg McSorley (Amphenol) seconded that T11-2021-00197-v002 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 the INCITS Organization, Policies, and Procedures found at http://www.incits.org. 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. Attendance for the ad hoc meetings is shown in annex A.3.

## 3.2 Changes in Representation Since the Last Meeting

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

Qian Banglong was added as Alternate for Marvell Semiconductor, Inc.  Other representation for Marvell remains the same.

## 3.3 New Voting Memberships

- No additional companies were granted voting membership at this meeting.

## 3.4 Voting memberships in jeopardy for attendance

- No company is in membership jeopardy for non-attendance during this meeting cycle.

## 3.5 Voting memberships in jeopardy for non-payment of dues

- There were no companies in membership jeopardy for non-payment of dues.

## 3.6 Voting memberships in jeopardy for letter ballot performance

- Cisco and Macom are in jeopardy for letter ballot performance for not having voted on two of last 3 T11 letter ballots.

## 3.7 Membership for this meeting

Technical Committee T11 had 17 voting members at the T11 regular meeting 10 June 2021. With no members losing voting privileges, and no members gaining voting privileges the voting membership of T11 remains at 17 for 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 17. One third of the total membership for this meeting is 6. The number of member organizations that responded to the call for quorum was 16. This exceeds or equals one third of the total membership for this meeting and also exceeds or equals 6. A quorum is therefore present for this meeting.
It should be noted that of the 16 member companies present at this plenary meeting, 8 were in attendance in-person.

## 3.10 Call for Guests

The chair requested those associated with organizations that are not members of T11 to introduce themselves. No one responded.

## 4 Document Distribution

The chair described the process for T11 document distribution via http://standards.incits.org.

## 5 Approval of Minutes - Meeting #165

The prior regular meeting of the INCITS Fibre Channel (T11) Technical Committee was #165 on 10 June 2021. The draft Minutes of that meeting were posted as document T11/2021-00174-v000.

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 (pgd@us.ibm.com) or at the subsequent meeting in person.

Howard Johnson (Broadcom) moved and Greg McSorley (Amphenol) seconded to accept T11/2021-00174-v000 as the Minutes of T11 meeting #165 on 10 June 2021. The motion passed by acclamation.

See action item 21-009.

## 6 Review of Old Action Items

| 21-007 | T11 secretary to post approved Minutes of T11 meeting #164 as agreed at T11 meeting #165. Completed by posting T11-2021-00180-v000 on June 11, 2021. |
|--------|---------------------------------------------------------------------------------------------------------------------------------------------------|
| 21-008 | T11 Chair to work with Tracy and the Drury Plaza hotel to work out AV issues, costs, etc. and report back to the members.  Completed by posting T11 August meeting announcement on June 21, 2021. Meeting proceeded as planned. |

## 7 Review of T11 Project and Proposal Status

### 7.1 Project Proposals
**7.1.1** FC-NVM-e
A project proposal for this will likely come forward in October.

### 7.2 Project Status Review

The T11 Project status sheet was displayed (see annex B.1). The current version can be viewed at any time at http://standards.incits.org, in the "T11 Projects" folder in the documents section.

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

### 8.1

## 9 Old Business

No old business was reopened.

## 10 Task Group T11.2 - Physical Interfaces

### 10.1 Report to T11 Plenary (T11-2021-00240-v000)

Task Group chair Tom Palkert (Macom) gave the report posted as T11-2021-00240-v000 on activity at T11.2.

## 10.2 Actions

**10.2.1** There were no actions

## 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 ([T11-2021-00239-v000](#))

Task Group Chair Craig Carlson (Marvell) presented the information posted as T11-2021-00239-v000 on activity at T11.3.

## 11.2 Actions

**11.2.1** There were no actions

## 11.3 Other Items

No other items were presented for TG T11.3.

## 12 Joint TG T11.2 / T11.3 Items

## 12.1 Report to T11 Plenary ([T11-2021-00232-v001](#))

Task Group Chair Dean Wallace (Marvell) presented the information posted as T11-2021-00232-v001 on activity at the Joint T11.2/T11.3 ad hoc meeting.

## 12.2 Actions

**12.2.1** There were no actions.

## 12.3 Other Items

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

## 13 T11 project activities

None for this meeting cycle.

## 14 Review of International Activity

### 14.1 INCITS SC 25 / WG4 TAG Status Report (T11-2021-00195-v000)

Dave Peterson (Broadcom) presented the information posted as T11-2021-00195-v000 on INCITS SC 25 / WG4 TAG project status (see annex B.2).

## 15 T11 New Business

### 15.1 INCITS TC/TG Renaming
INCITS board is looking at how potential newcomers to committees would find us via internet searches.  They want to remove the name 'T11' and change to something they feel is more descriptive.  The Chair told them we don't want the name changed due to its longevity and how it's embedded in so many things…vendor and FCIA usage, for example.  No one in the meeting expressed disagreement with this thought.

## 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/v2t?openForm&ent=35>.

### 16.2 Call for Patents

There were no answers to the 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 T11-2010-008v0.

### 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/standards-information/legal-info.

No company responded to the call for patents.

### 17 Liaison Reports

### 17.1 T11 report (T11-2021-00182-v000), INCITS Liaison report (T11-2021-00200-v000)

Steve Wilson (Broadcom) presented the information posted as T11-2021-00182-v000 on activity at T11 as reported to other organizations, and the information posted as T11-2021-00200-v000 on activity at INCITS other than T11 project status.

### 17.2 TC T10 (T11-2021-00226-v000)

Fred Knight (NetApp) gave report T11-2021-00226 on activity at T10.

### 17.3 FCIA (T11-2021-00230-v000)

Mark Jones (Broadcom) gave report T11-2021-00230-v000 on activity at FCIA.

### 17.4 IEEE 802.3 (T11-2021-00235-v000)

Tom Palkert (Macom) and Mabud Choudhury (OFS) gave report T11-2021-00235-v000 on activity at IEEE 802.3.

### 17.5 INCITS TC CS1 (None)

## 17.6 SNIA and DMTF ([T11-2021-00227-v000](#))

Fred Knight (NetApp) discussed report T11-2021-00227-v000 on SNIA and DMTF activities.

## 17.7 NVMe (verbal)

Craig Carlson (Marvell) gave a brief verbal report on recent NVMe activities.

# 18 Administrative Matters

## 18.1 Officer Appointments

Officers of this Technical Committee and its Task Groups are:

| | |
|---|---|
| T11 Chairman | Steve Wilson (Broadcom) |
| T11 International Representative | David Peterson (Broadcom) |
| T11 Vice Chairman | Craig Carlson (Marvell) |
| T11 Secretary | Patty Driever (IBM) |
| T11.2 Chairman | Tom Palkert (Macom) |
| T11.2 Vice-Chairman | Dean Wallace (Marvell) |
| T11.2 Secretary | Jason Rusch (Viavi) |
| T11.3 Chairman | Craig Carlson (Marvell) |
| T11.3 Vice-chairman | Roger Hathorn (IBM) |
| T11.3 Secretary | Patty Driever (IBM) |

# 19 Future Meeting Schedule

## 19.1 Authorization of adhoc meetings

The chair directed members to the ICMS T11 calendar located at the T11 section of the web site [http://standards.incits.org](http://standards.incits.org) 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 SFF in Coeur d'Alene, ID and by Marvell via Zoom hybrid conference 04-08 October 2021.

### 19.2 Guidelines for hosting T11 meetings (T11-2017-00151-v000)

For members who are considering hosting future plenary meetings, the chair directed their attention to "Guidelines for hosting T11 Plenary Weeks" T11-2017-00151-v000. 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 and 2020–2021 meeting schedule

The chair announced the following schedule for 2021-2022.

| Date | Location | Host Organization | Host Person |
|---|---|---|---|
| February 1-5, 2021 | Virtual Meeting | | |
| April 5-9, 2021 | Virtual Meeting | | |
| June 7-12, 2021 | Virtual Meeting | | |
| August 16-20, 2021 | Sante Fe, NM* | Broadcom | Steve Wilson |
| October 4-8, 2021 | tbd | tbd | tbd |
| December 6-10, 2021 | Deerfield Beach, FL* | Amphenol | Chris Lyon |
| February 7-11, 2022 | tbd | tbd | tbd |
| April 4-8, 2022 | tbd | tbd | tbd |
| June 6-10, 2022 | tbd | tbd | tbd |
| August 8-12, 2022 | tbd | tbd | tbd |

| October 3-7, 2022 | tbd | tbd | tbd |
|---|---|---|---|
| December 5-9, 2022 | tbd | tbd | tbd |

*Locations are pending based on when face-to-face meetings resume

## 19.4 Approval of Meeting Venues

### 19.4.1 October 2021 Hybrid Venue, Coeur d'Alene, ID
The Chair indicated that SFF is willing to host for the October 4-8 meeting week in Coeur d'Alene, ID.  Chris Lyon (Amphenol) moved, seconded by Roger Hathorn (IBM), to accept Couer d'Alene as the venue for the October 2021 hybrid meeting.  Motion carried unanimously.

### 19.4.2 June 2022 Date Change: June 13-17
The currently planned June 6-10, 2022 meeting dates conflict with the INCITS symposium, so Steve suggested last time that we will likely change our dates.  Tracy and Craig worked with the hotel that was lined up for the current dates and they have agreed to change the contract to the June 13-17 dates, but they won't have room availability past Friday.  Chris Lyon (Amphenol) moved and Tom Palkert (Macom) seconded to move the dates of the June 2022 meeting to June 13-17 and to set the location as Duluth, MN hosted by Marvell.  Motion carried unanimously.

See action item 21-010.

## 19.5 Next meeting information

The chair reminded the membership that the next T11 plenary week, October 04-08, is planned to be a hybrid meeting with the face-to-face meeting in Coeur d'Alene, ID hosted by SFF and the virtual meeting will be using Marvell Zoom facilities.

## 19.6 Letter to travel representatives on hotel rates (T11-2017-00150-v000)

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, reduced 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 T11-2017-00150-v000 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 October 2021 T11 meetings

The vice chair Craig Carlson (Marvell) created and the chair presented the tentative meeting map of the next T11 meeting week. He created two meeting maps---one if we are able to pull of the hybrid meeting and one if we are forced to remain fully virtual. He advised members for the most recent meeting map of the next T11 regular meeting to go to the INCITS website, search the T11 Meeting Information folder under October 2021.

## 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 #166 is shown in annex A.2. 27 people from 17 member (16 voting) organizations were in attendance.

## 21 Review of Action Items

| 21-009 | T11 secretary to post approved Minutes of T11 meeting #165 as agreed at T11 meeting #166. (See clause 5) |
|---|---|
| 21-010 | T11 chair to update T11 Future Meeting Schedule to reflect October 2021 hybrid meeting with face-to-face portion in Couer d'Alene and to reflect the new June 2022 meeting dates. |

| | |
|---|---|
| | See Clause 19.4.1 and Clause 19.4.2. |
| 21-011 | Howard Johnson, Roger Hathorn, Craig Carlson, Patty Driever, & Dave Peterson to bring in to Joint T11.2/T11.3 meeting list of discussion points related to impact of long link down/up times |

## 22 Adjournment

Greg McSorley (Amphenol) moved and David Rodgers (Teledyne-LeCroy) seconded to adjourn at 2:28 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:

**Dr. William Ham**

**Mr. Robert Kembel**

**Mr. Bob Nixon**

**Mr. Schelto Van Doorn**

**A.1.2 Voting Members**

The following is the list of organizations that are voting members of record for regular meeting #166 of the INCITS Fibre Channel (T11) Technical Committee, including the recognized representatives of each member organization:

| Organization | Representative Type | Representative |
|---|---|---|
| Amphenol | Principal | Chris Lyon |
| | Alternate | Brad Brubaker |
| | Alternate | Paul Coddington |
| | Alternate | Daniel Dillow |
| | Alternate | Michael Klempa |
| | Alternate | Sam Kocsis |
| | Alternate | Alex Persaud |
| | Alternate | Hu Silver |
| | Alternate | Michael Wingard |
| Broadcom | Principal | Steven L. Wilson |
| | Alternate | Evan Beauprez |

|  | Alternate | Ben Chu |
|---|---|---|
|  | Alternate | Robert Hannah |
|  | Alternate | Adam Healey |
|  | Alternate | Howard Johnson |
|  | Alternate | Mark Jones |
|  | Alternate | Anil Mehta |
|  | Alternate | David Peterson |
|  | Alternate | James Smart |
|  | Alternate | Anil Veerabhadrappa |
| Cisco | Principal | Mike Blair |
|  | Alternate | Harsha Bharadwaj |
|  | Alternate | Rajesh L.G. |
|  | Alternate | Fabio Maino |
|  | Alternate | Edward Mazurek |
|  | Alternate | Mark Nowell |
|  | Alternate | Sai Pavan |
|  | Alternate | Kiran Ranabhor |
|  | Alternate | Shalom Shefa |
|  | Alternate | Sumanth Sindiri |
|  | Alternate | Ramesh Sivakolundu |
|  | Alternate | Xiaohong Wu |
| Commscope | Principal | Yang (Sunny) Xu |
|  | Alternate | Gary Gibbs |
| Corning | Principal | David Kozischek |
|  | Alternate | Steven E. Swanson |
| DCS | Principal | Steve Eisele |
|  | Alternate | Rodney Jacks |
| Dell | Principal | Erik Smith |
|  | Alternate | Jai Bansai |
|  | Alternate | David Black |
|  | Alternate | David Brown |

| | | |
|---|---|---|
| | Alternate | Gaurav Chawla |
| | Alternate | Doug Farley |
| | Alternate | David Piehler |
| | Alternate | Vinay Sawal |
| | Alternate | Joseph White |
| Hewlett Packard Enterprise | Principal | Barry Maskas |
| | Alternate | Curtis Ballard |
| | Alternate | Rupin Mohan |
| | Alternate | Krishna Babu Puttagunta |
| IBM | Principal | Roger Hathorn |
| | Alternate | Patty Driever |
| | Alternate | Stephen Guendert |
| II-VI Inc | Principal | Vipul Bhatt |
| | Alternate | Vera Koleva |
| | Alternate | Lance Thompson |
| Keysight Technologies | Principal | Stephen Didde |
| | Alternate | Joachim Vobis |
| Macom | Principal | Thomas Palkert |
| Marvell Semiconductor Inc | Principal | Craig W. Carlson |
| | Alternate | Anshul Agarwal |
| | Alternate | Sanjaya Anand |
| | Alternate | Qian Banglong |
| | Alternate | Girish Basrur |
| | Alternate | Kathy Caballero |
| | Alternate | Michael Dudek |
| | Alternate | Arun Easi |
| | Alternate | Robert Friend |
| | Alternate | Duane Grigsby |
| | Alternate | James Hamada |
| | Alternate | Andrew Joy |
| | Alternate | Ali Khwaja |

| | Alternate | Stephen Lam |
|---|---|---|
| | Alternate | Ray Leung |
| | Alternate | Raymond Liang |
| | Alternate | Akinori Maeda |
| | Alternate | Praveen Midha |
| | Alternate | Trinh Nguyen |
| | Alternate | Raul Oteyza |
| | Alternate | Arun Patil |
| | Alternate | Eddy Soetjahja |
| | Alternate | Alan Spalding |
| | Alternate | Gourangadoss Sundar |
| | Alternate | Andrew Vasquez |
| | Alternate | Dean Wallace |
| NetApp | Principal | Frederick Knight |
| | Alternate | John Meneghini |
| OFS | Principal | Roman Shubochkin |
| | Alternate | Mabud Choudhury |
| Teledyne LeCroy | Principal | David Rodgers |
| | Alternate | Amit Bakshi |
| | Alternate | Rakesh Kathiresan Natarajan |
| | Alternate | Douglas Lee |
| | Alternate | Henry Poelstra |
| | Alternate | Srikant Tadigadapa |
| Viavi | Principal | Jason Rusch |
| | Alternate | Scott Baxter |
| | Alternate | George Bullis |
| | Alternate | Paul Gentieu |

## A.1.3 Advisory Members

The following is the list of organizations that are advisory (i.e., nonvoting) members of record for regular meeting #166 of the INCITS Fibre Channel (T11) Technical Committee, including the recognized representatives of each member organization:

| Organization | Representative Type | Representative |
|---|---|---|
| Anritsu | Principal | Tadanori Nishikobara |
| | Alternate | Yuji Sekine |
| Ciena | Principal | Stephen Shew |
| | Alternate | Sebastien Gareau |
| Credo Semiconductor | Principal | Phil Sun |
| | Alternate | Yasuo Hidaka |
| Futurewei | Principal | Timothy Jeffries |
| | Alternate | Victor Cao |
| | Alternate | Chaohong (Henry) Hu |
| Lumentum Operations | Principal | David Lewis |
| MediaTek | Principal | Tamer Ali |
| | Alternate | Chihlong Dai |
| | Alternate | Herbert Wang |
| | Alternate | Mau-Lin Wu |
| Molex | Principal | Alexandra Haser |
| | Alternate | Scott Sommers |
| Panduit | Principal | Jose Castro |
| | Alternate | Bulent Kose |
| | Alternate | Robert Reid |
| TE Connectivity | Principal | Nathan Tracy |
| | Alternate | Jeff Mason |
| | Alternate | Matt Schumacher |
| Unisys | Principal | Jeffrey Dremann |
| | Alternate | Phil Shelton |
| VMWare | Principal | Neil MacLean |
| | Alternate | Wenchao Cui |
| | Alternate | Wenhua Liu |
| | Alternate | Murali Rajagopal |
| | Alternate | Ahmad Tawil |

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

| Organization | Representative(s) | In Person |
|---|---|---|
| AMPHENOL CORP | Michael Klemper | N |
| | Chris Lyon | Y |
| | Greg McSorley | Y |
| BROADCOM INC | Howard Johnson | Y |
| | Mark Jones | Y |
| | David Peterson | Y |
| | Steven L. Wilson | Y |
| CISCO SYSTEMS INC | Mike Blair | N |
| | Ramesh Sivakolundu | Y |
| | Xiaohong Wu | N |
| COMMSCOPE | Sunny Xu | N |
| CORNING INC | David Kozischek | N |
| DATA CENTER SYSTEMS | Steve Eisele | N |
| DELL INC | David Brown | Y |
| | David Piehler | N |
| IBM CORP | Patty Driever | N |
| | Roger Hathorn | Y |
| II-VI INC | Lance Thompson | N |
| KEYSIGHT TECHNOLOGIES INC | Stephen Didde | N |
| MACOM | Thomas Palkert | Y |
| MARVELL SEMICONDUCTOR | Craig Carlson | Y |
| | Dean Wallace | Y |
| NETAPP INC | Frederick Knight | Y |

| | | |
|---|---|---|
| OFS FITEL LLC | Mabud Choudhury | N |
| PANDUIT CORPORATION | Jose Castro | N |
| TELEDYNE LECROY CORPORATION | Henry Poelstra | N |
| | David Rodgers | N |
| VIAVI SOLUTIONS INC | Jason Rusch | N |

## A.2.2 Ad hoc meeting attendance

FC-NVMe-2 ad hoc, members

| Organization | Representative(s) |
|---|---|
| | |

FC-SW-8 ad hoc, members

| Organization | Representative(s) |
|---|---|
| BROADCOM INC | Howard Johnson |
| | David Peterson |
| | Anil Veerabhadrappa |
| CISCO SYSTEMS INC | Edward Mazurek |
| DELL INC | David Brown |
| IBM CORP | Patty Driever |
| | Roger Hathorn |
| MARVELL SEMICONDUCTOR INC | Craig Carlson |

FC-PI-8 ad hoc, members

| Organization | Representative(s) |
|---|---|
| AMPHENOL CORPORATION | Michael Klempa |
| | Chris Lyon |
| BROADCOM INC | Ben Chu |
| | Anil Mehta |
| | James Smart |
| | Steven Wilson |

| | |
|---|---|
| CISCO SYSTEMS INC | Ramesh Sivakolundu |
| | Xiaohong Wu |
| COMMSCOPE | Sunny Xu |
| CORNING INC | David Kozischek |
| DATA CENTER SYSTEMS | Steve Eisele |
| DELL INC | David Piehler |
| II-VI INC | Lance Thompson |
| KEYSIGHT TECHNOLOGIES INC | Stephen Didde |
| MACOM | Thomas Palkert |
| MARVELL SEMICONDUCTOR INC | Mike Dudek |
| | Andrew Joy |
| | Raul Oteyza |
| | Dean Wallace |
| OFS FITEL LLC | Mabud Choudhury |
| PANDUIT CORP | Jose Castro |
| TELEDYNE LECROY CORPORATION | Henry Poelstra |
| VIAVI SOLUTIONS INC | Jason Rusch |

FC-GS-9 ad hoc, members

| Organization | Representative(s) |
|---|---|
| BROADCOM INC | Howard Johnson |
| | David Peterson |
| | James Smart |
| | Anil Veerabhadrappa |
| CISCO SYSTEMS INC | Harsha Bharadwaj |
| | Mike Blair |
| | Edward Mazurek |
| IBM CORPORATION | Roger Hathorn |
| NETAPP INC | Frederick Knight |
| VIAVI SOLUTIONS INC | Jason Rusch |

FC-LS-5 ad hoc, members

| Organization | Representative(s) |
|---|---|
| BROADCOM INC | Howard Johnson |
| | Dave Peterson |
| CISCO SYSTEMS INC | Harsha Bharadwaj |
| | Mike Blair |
| | Edward Mazurek |
| IBM CORP | Patty Driever |
| | Roger Hathorn |
| MARVELL SEMICONDUCTOR INC | Craig Carlson |
| NETAPP INC | Frederick Knight |
| VIAVI SOLUTIONS INC | Jason Rusch |

FC-FS-6 ad hoc, members

| Organization | Representative(s) |
|---|---|
| BROADCOM | David Peterson |
| | Howard Johnson |
| | Anil Veerabhadrappa |
| CISCO SYSTEMS INC | Mike Blair |
| | Ed Mazurek |
| DELL INC | David Brown |
| IBM | Patty Driever |
| | Roger Hathorn |
| MARVELL SEMICONDUCTOR INC | Craig Carlson |
| NETAPP INC | Frederick Knight |
| VIAVI SOLUTIONS INC | Jason Rusch |

FC-PM ad hoc, members

| Organization | Representative(s) |
|---|---|
| BROADCOM INC | Howard Johnson |
| | David Peterson |
| | James Smart |
| | Steven Wilson |
| CISCO SYSTEMS INC | Mike Blair |
| IBM CORPORATION | Patty Driever |
| | Roger Hathorn |
| MARVELL SEMICONDUCTOR INC | Craig Carlson |
| VIAVI SOLUTIONS INC | Jason Rusch |

Joint T11.2/T11.3 ad hoc, members

| Organization | Representative(s) |
|---|---|
| AMPHENOL INC | Michael Klempa |
| BROADCOM INC | Ben Chu |
| | Howard Johnson |
| | James Smart |
| | Anil Veerabhadrappa |
| | Steven Wilson |
| CISCO SYSTEMS INC | Edward Mazurek |
| | Rakesh Sivakolundu |
| COMMSCOPE | Sunny Xu |
| CORNING INC | David Kozischek |
| DELL INC | David Brown |
| | David Piehler |
| IBM CORPORATION | Patty Driever |
| | Roger Hathorn |
| II-VI INC | Lance Thompson |
| KEYSIGHT TECHNOLOGIES INC | Stephen Didde |
| MACOM | Tom Palkert |
| NETAPP | Frederick Knight |
| OFS FITEL LLC | Mabud Choudhury |

| TELEDYNE LECROY CORP | David Rodgers |
|---|---|

## Annex B Supporting Documents

## B.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 #166 held on 19 August 2021.

| Standard | Status | Action | Target or Reaffirm Date | Editor | Ad Hoc Chair | Secretary |
|---|---|---|---|---|---|---|
| Projects in Development Stage | | | | | | |
| FC-FS-6 | In dev. | To T11 | Dec-21 | Carlson | Peterson | Driever |
| FC-GS-9 | In dev. | To T11 | Dec-21 | Rusch | Peterson | Johnson |
| FC-LS-5 | In dev. | To T11 | Dec -21 | Carlson | Driever | Rusch |
| FC-MSQS-3 | In dev. | To T11 | Dec-21 | Castro | Wallace | Wallace |
| FC-PI-8 | In dev. | ToT11 | Dec-21 | Rusch | Wallace | Wallace |
| FC-PM | In dev. | To T11. | Dec.21 | Peterson | Carlson | Peterson |
| FC-SW-8 | In dev | ToT11 | Dec 21 | Peterson | Carlson | Peterson |
| Projects in Approval Stage | | | | | | |
| | | | | | | |

## B.2 INCITS SC 25 / WG4 project status

The following tables indicates the status of all active INCITS SC 25 / WG4 TAG projects. It reflects the official status as reported at the T11 regular meeting #166, 19 August 2021 in document T11-2021-00195-v000.  The SC 25/WG 4 TAG project database is available in document sc25-wg4-2018-00011-TAG-Project-Database.

## B.2.1 Active T11 SC25 WG4 TAG Projects

| | ISO/IEC # (T11 allocated) | Status |
|---|---|---|
| FC-SP-2+AM1 NWIP | 14165-432 | Submitted in July 2018. Resubmission email from INCITS/TIA on January 18, 2019 Feb 22 – email from Juergen indicates IEC project was started JTC1-SC25/2860/NP ballot opened 3/1/2019 and closed 05/24/2019 – Stage: ACD – Approved for CD 9/16/19 – CD circulated on 9/13/19 <br> - International (comments) due date: 12/06/2019 <br> - TAG (comments) Deadline: 11/06/2019 <br> Stage: PCC – Preparation of CC 1/28/20 – No comments requesting changes received, with request for Word source 6/03/20 – Received request for Word source again 🙁 DIS text was submitted to IEC for further processing.  FDIS ballot should be issued shortly. 12/7/20 – Sent email requesting status 12/11/20 – Submitted CDV 5/28/21 – Comments received from ISO-IEC Central Office |