



InterNational Committee for Information Technology Standards
(INCITS) Secretariat: Information Technology
Industry Council (ITI) 700 K Street NW, Suite 600,
Washington, DC 20001

www.INCITS.org



T11-2021-00114-v000

**Approved Minutes
INCITS Fibre Channel (T11) Technical Committee
Regular Meeting #163
04 February 2021 – 1 PM to 3 PM CDT
Virtual Meeting**

1 Opening Remarks and Introductions

1.1 Introductory Remarks

TC T11 chair Steve Wilson (Broadcom) convened regular meeting #163 of the INCITS Fibre Channel (T11) Technical Committee on Thursday, 04 February 2021 at 1:00 PM CDT. He introduced himself and thanked our host Marvell for the virtual meeting facilities.

He next introduced Craig Carlson (Marvell) as vice chair 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 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 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 T11-2021-00001-v001. The chair presented the agenda with final updates as T11-2021-00001-v002 and made a call for any changes and new agenda items. No changes or new items were requested.

Chris Lyon (Amphenol) moved and David Peterson (Broadcom) seconded that T11-2021-00001-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:

Robert Hannah was removed as Alternate for Broadcom, Inc. Other representation for Broadcom remains the same.

Edward Mazurek and Shalom Shefa were added as Alternates for Cisco Systems, Inc.

Other representation for Cisco remains the same.

Joseph White was removed as Alternate for Dell Inc. Other representation for Dell remains the same.

Victor Cao moved from Alternate to Principal for Futurewei Technologies, Inc. Timothy Jeffries moved from Principal to Alternate for Futurewei. Other representation for Futurewei remains the same.

Rick Hicksted Jr. was removed as Alternate for Marvell Semiconductor, Inc. Other representation for Marvell remains the same.

Yan-Bin Luo was removed as Alternate and Chihlong Dai was added as Alternate for Media-Tek USA Inc. All other representation for Media-Tek 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

- There were no companies 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 December 2020. 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.

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 #162

The prior regular meeting of the INCITS Fibre Channel (T11) Technical Committee was #162 on 10 December 2020. The draft Minutes of that meeting were posted as document T11/2020-00290-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.

One correction was noted was that in Action 20-015 it should have specified meetings #161 and #162 instead of #160 and #161.

Howard Johnson (Broadcom) moved and Steven Eisele (DCS) seconded to accept T11/2020-00290-v000 as modified as the Minutes of T11 meeting #162 on 10 December 2020. The motion passed by acclamation.

See action item [21-001](#).

6 Review of Old Action Items

20-015	T11 secretary to post approved Minutes of T11 meeting #161 as agreed at T11 meeting #162. Completed by posting T11-2020-00304-v000 on December 28, 2020.)
20-016	T11 chair to update T11 Future Meeting Schedule with 2022 dates and change of April 2021 meeting back to a virtual meeting. Completed by Chair on December 11, 2020.

7 Review of T11 Project and Proposal Status

7.1 Project Proposals

7.1.1 None

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 There were no letter ballots since the last meeting cycle.

9 Old Business

No old business was reopened.

10 Task Group T11.2 - Physical Interfaces

10.1 Report to T11 Plenary ([T11-2021-00056-v000](#))

Task Group chair Tom Palkert (Macom) gave the report posted as T11-2021-00056-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 ([T11-2021-00057-v000](#))

Task Group chair Craig Carlson (Marvell) presented the information posted as T11-2021-00057-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 ([T11-2021-00053-v000](#))

The chair referred everyone to the information posted as T11-2021-00053 on activity at the Joint T11.2/T11.3 working group, but since both groups were a part of the meeting and it was reviewed in both the T11.2 and T11.3 plenaries, it was left to people to review the content posted.

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 ([T11-2021-00041-v000](#))

Dave Peterson (Broadcom) presented the information posted as T11-2021-00041-v000 on INCITS SC 25 / WG4 TAG project status (see [annex B.2](#)).

15 T11 New Business

15.1 National Maintenance Review Motions ([T11-2021-00008-v000](#))

The T11 community was informed of the 2021 National Maintenance review by INCITS at the December 2020 T11 plenary meeting. The Chair proposed that the following standards/technical reports be either stabilized, reaffirmed, or withdrawn according to the following motions.

Motion1: Steve Wilson (Broadcom) moved and Jason Rusch (Viavi) seconded to recommend to INCITS that the following standards be recommended for Stabilization (2/3 Meeting). The rationale for stabilization is that the standards have ongoing validity and effectiveness, but they are mature and unlikely to require maintenance of any sort.

INCITS 460-2011[R2016]	Information technology -Fibre Channel - Physical Interface -3 (FC-PI-3)
INCITS 479-2011[R2016]	Information Technology -Fibre Channel - Physical Interface -5 (FC-PI-5)

INCITS 418-2006[R2016]	Information technology -Switch Fabric - Generation 4 (FC-SW-4)
INCITS 466-2011[R2016]	Information Technology -Fibre Channel - Single Byte Command Code Sets Mapping Protocol -4 (FC-SB-4)
INCITS 470-2011[R2016]	Information technology -Fibre Channel - Framing and Signaling -3 (FC-FS-3)
INCITS 475-2011[R2016]	Information Technology -Fibre Channel - Inter-Fabric Routing (FC-IFR)
INCITS 477-2011[R2016]	Information Technology -Fibre Channel -Link Services -2 (FC-LS-2)

Motion carried In Favor – 16, Opposed – 0, Abstain – 0.

Motion 2: Steve Wilson (Broadcom) moved and Jason Rusch (Viavi) seconded to recommend to INCITS that the following standards/technical reports be recommended for Reaffirmation (2/3 Meeting):

INCITS 533-2016	Information technology -Fibre Channel – Physical Interfaces –6P 128GFC Four Lane Parallel (FC-PI-6P)
INCITS 511-2016	Information technology -Fibre Channel - Switch Fabric -6 (FC-SW-6)
INCITS 488-2016	Information technology -Fibre Channel Framing and Signaling 4 (FC-FS-4)
INCITS/TR-41-2006[R2016]	INCITS Technical Report for Information technology -Fibre Channel -Avionics Environment -Anonymous Subscriber Messaging (FC-AE-ASM)
INCITS 479-2011/AM 1-2016	Information Technology -Fibre Channel — Physical Interface-5 -Amendment 1 (FC-PI-5/AM1)

Motion carried In Favor – 16, Opposed – 0, Abstain – 0.

15.2 INCITS Awards, Due April 22, 2021

The Chair informed everyone that the nomination period for INCITS awards is open now and closes April 22, 2021. Members are encouraged to nominate anyone they feel should receive such recognition. The Chair is willing to assist anyone in preparing such a nomination.

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

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 ([T11-2021-00003-v000](http://www.t11.org/t11/docreg.nsf/v2t?openForm&ent=35)), INCITS Liaison report ([T11-2021-00026-v000](http://www.t11.org/t11/docreg.nsf/v2t?openForm&ent=35))

Steve Wilson (Broadcom) presented the information posted as T11-2021-00003-v000 on activity at T11 as reported to other organizations, and the information posted as T11-2021-00026-v000 on activity at INCITS other than T11 project status.

17.2 TC T10 ([T11-2021-00042-v000](#))

Fred Knight (NetApp) gave report T11-2021-00042 on activity at T10.

17.3 FCIA ([T11-2021-00045-v000](#))

Chris Lyon (Amphenol) gave report T11-2021-00045-v000 on activity at FCIA.

17.4 IEEE 802.3 ([T11-2021-00048-v000](#))

Tom Palkert (Macom) and Mabud Choudhury (OFS) gave report T11-2021-00048-v000 on activity at IEEE 802.3.

17.5 INCITS TC CS1 (None)

17.6 SNIA and DMTF ([T11-2021-00046-v000](#))

Fred Knight (NetApp) discussed report T11-2021-00046-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> 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 Marvell via Zoom virtual conference 05-08 April 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	Duluth, MN*	Marvell	Craig Carlson
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 Back to Face-to-Face Discussion

We all want to get back to the face-to-face meetings, as the efficiency and effectiveness of our groups is increased when we meet in person. However due to limitations likely to be imposed by member companies for a bit longer, the Chair is exploring the idea of moving to a hybrid approach (some members meet in person and others can continue to participate remotely) starting in June or August. INCITS has initially expressed openness to this idea. The Chair will be forming a small group to formulate a plan for how this might be made to work. There is also work on-going to try to reformulate the terms of the contracts host companies sign, in terms of relaxing the rules for minimum hotel night obligations.

19.5 Next meeting information

The chair reminded the membership that the next T11 plenary week will be a virtual meeting hosted by Marvell via Zoom April 05-08, 2021.

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 April 2021 T11 meetings

The vice chair Craig Carlson (Marvell) presented the tentative meeting map of the next T11 meeting week. 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 April 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 #163 is shown in annex A.2. 31 people from 17 member (16 voting) organizations were in attendance.

21 Review of Action Items

21-001	T11 secretary to post approved Minutes of T11 meeting #162 as agreed at T11 meeting #163. (See clause 5)
21-002	T11 Chair to send letter to INCITS indicating the results of the motions related to National Maintenance Reviews. See Clause 15.1 .
21-003	T11 Chair to reach out to INCITS Secretariat regarding current status of embargoed countries.

22 Adjournment

Chris Lyon (Amphenol) moved, and Howard Johnson (Broadcom) seconded, to adjourn at 2:18 PM CDT. 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 #163 of the INCITS Fibre Channel (T11) Technical Committee, including the recognized representatives of each member organization:

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

	Alternate	Ben Chu
	Alternate	Adam Healey
	Alternate	Howard Johnson
	Alternate	Mark Jones
	Alternate	Anil Mehta
	Alternate	David Peterson
	Alternate	Rob Peterson
	Alternate	James Smart
	Alternate	Anil Veerabhadrappe
Cisco	Principal	Mike Blair
	Alternate	Harsha Bharadwaj
	Alternate	Rajesh L.G.
	Alternate	Fabio Maino
	Alternate	Edward Mazurek
	Alternate	Mark Nowell
	Alternate	Sai Pavan
	Alternate	Joe Pelissier
	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	David Black
	Alternate	David Brown

	Alternate	Gaurav Chawla
	Alternate	Doug Farley
	Alternate	David Piehler
	Alternate	Vinay Sawal
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	Steve Sekel
	Alternate	Joachim Vobis
Macom	Principal	Thomas Palkert
Marvell Semiconductor Inc	Principal	Craig W. Carlson
	Alternate	Anshul Agarwal
	Alternate	Sanjaya Anand
	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	Akinori Maeda
	Alternate	Praveen Midha
	Alternate	Trinh Nguyen
	Alternate	Raul Oteyza
	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 #163 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 #163 of the INCITS Fibre Channel (T11) Technical Committee:

Organization	Representative(s)
AMPHENOL CORP	Paul Coddington
	Michael Klempa
	Sam Kocsis
	Chris Lyon
BROADCOM INC	Ben Chu
	Howard Johnson
	David Peterson
	Steven L. Wilson
CISCO SYSTEMS INC	Mike Blair
	Edward Mazurek
	Ramesh Sivakolundu
COMMSCOPE	Gary Gibbs
DATA CENTER SYSTEMS	Steve Eisele
DELL INC	Vinay Sawal
	Erik Smith
HEWLETT PACKARD ENTERPRISE	Krishna Babu Puttagunta
IBM CORP	Patty Driever
	Roger Hathorn
II-VI INC	Vera Koleva
	Lance Thompson
KEYSIGHT TECHNOLOGIES INC	Stephen Didde
MACOM	Thomas Palkert
MARVELL SEMICONDUCTOR INC	Craig W. Carlson

	Dean Wallace
NETAPP INC	Frederick Knight
	John Meneghini
OFS FITEL LLC	Mabud Choudhury
PANDUIT CORPORATION	Jose Castro
TELEDYNE LECROY CORPORATION	Henry Poelstra
	David Rodgers
VIAMI SOLUTIONS INC	Jason Rusch

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 Veerabhadrapa
	Steven Wilson
CISCO SYSTEMS INC	Mike Blair
	Edward Mazurek
HEWLETT PACKARD ENTERPRISE	Barry Maskas
	Krishna Babu Puttagunta
IBM CORP	Patty Driever
	Roger Hathorn
MARVELL SEMICONDUCTOR INC	Craig Carlson
	Raul Oteza
NETAPP INC	Frederick Knight

FC-PI-8 ad hoc, members

Organization	Representative(s)
AMPHENOL CORPORATION	Michael Klempa
BROADCOM INC	Ben Chu
	Steven Wilson
CISCO SYSTEMS INC	Ramesh Sivakolundu
	Xiaohong Wu
COMMSCOPE	Gary Gibbs
	Sonny Xu
DATA CENTER SYSTEMS	Steve Eisele
DELL INC	David Piehler
	Vinay Sawal
II-VI INC	Vera Koleva
	Lance Thompson
KEYSIGHT TECHNOLOGIIES 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

FC-GS-9 ad hoc, members

Organization	Representative(s)
BROADCOM INC	Howard Johnson
	David Peterson
	James Smart

	Anil Veerabhadrapa
CISCO SYSTEMS INC	Mike Blair
	Edward Mazurek
HEWLETT PACKARD ENTERPRISE	Barry Maskas
IBM CORP	Patty Driever
	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
	James Smart
	Anil Veerabhadrapa
CISCO SYSTEMS INC	Harsha Bharadwaj
	Mike Blair
	Edward Mazurek
HEWLETT PACKARD ENTERPRISE	Barry Maskas
IBM CORP	Patty Driever
	Roger Hathorn
MARVELL SEMICONDUCTOR INC	Craig Carlson
NETAPP INC	Frederick Knight
VIAVI SOLUTIONS	Jason Rusch

FC-FS-6 ad hoc, members

Organization	Representative(s)
BROADCOM	David Peterson
	Howard Johnson

	James Smart
	Anil Veerabhadrapa
	Steven Wilson
CISCO	Mike Blair
	Ed Mazurek
	Ramesh Sivakolundu
HEWLETT PACKARD ENTERPRISE	Barry Maskas
IBM	Patty Driever
	Roger Hathorn
MARVELL SEMICONDUCTOR INC	Craig Carlson
	Raul Oteyza
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
	Ramesh Sivakolundu
HEWLETT PACKARD ENTERPRISE	Barry Maskas
IBM CORPORATION	Patty Driever
	Roger Hathorn
MARVELL SEMICONDUCTOR INC	Craig Carlson
	Raul Oteyza
NETAPP INC	Frederick Knight

VIAVI SOLUTIONS INC	Jason Rusch
---------------------	-------------

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

Organization	Representative(s)
BROADCOM INC	Ben Chu
	Howard Johnson
	Anil Mehta
	David Peterson
	Steven Wilson
CISCO SYSTEMS INC	Mike Blair
COMMSCOPE	Gary Gibbs
DATA CENTER SYSTEMS	Steve Eisele
DELL INC	Vinay Sawal
HEWLETT PACKARD ENTERPRISE	Barry Maskas
IBM CORPORATION	Patty Driever
	Roger Hathorn
II-VI INC	Lance Thompson
MACOM	Thomas Palkert
MARVELL SEMICONDUCTOR INC	Raul Oteyza
NETAPP INC	Frederick Knight
OFS FITEL LLC	Mabud Choudhury
TELEDYNE LECROY CORPORATION	Henry Poelstra
VIAVI SOLUTIONS INC	Jason Rusch

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 #163 held on 04 February 2021.

Standard	Status	Action	Target or Reaffirm Date	Editor	Ad Hoc Chair	Secretary
Projects in Development Stage						
FC-FS-6	In dev.	To T11	Jun-21	Carlson	Peterson	Driever
FC-GS-9	In dev.	To T11	Jun-21	Rusch	Peterson	Johnson
FC-LS-5	In dev.	To T11	Jun -21	Carlson	Driever	Rusch
FC-PI-8	In dev.	ToT11	Dec-21	Rusch	Wallace	Wallace
FC-MSQS-3	In dev.	To T11	Dec-21	Castro	Wallace	Wallace
FC-PM	In dev.	To T11.	Oct.21	Peterson	Carlson	Peterson
FC-SW-8	In dev	ToT11	Jun 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 #163, 04 February 2021 in document T11-2021-00041-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 - International (comments) due date: 12/06/2019 - TAG (comments) Deadline: 11/06/2019 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