



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



T11-2023-00154-v000

**Draft Minutes
INCITS Fibre Channel (T11) Technical Committee
Regular Meeting #176
06 April 2023 – 1 PM to 3 PM PDT
Coeur d’Alene, ID (Hybrid Meeting)**

1 Opening Remarks and Introductions

1.1 Introductory Remarks

TC T11 chair Howard Johnson (Broadcom) convened regular meeting #176 of the INCITS Fibre Channel (T11) Technical Committee on Thursday, 06 April 2023 at 1:00 PM PDT. He introduced himself and thanked our host Broadcom for the physical meeting facilities as well Marvell for the virtual meeting facilities.

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

1.2 Introductions

1.2.1 Officer appointments (Officers)

The chair introduced the officers of T11, T11.2 and T11.3. The list of officers can be found on the INCITS website at this [link](#).

Officers of this Technical Committee and its Task Groups are:

T11 Chairman	Howard Johnson (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)

1.2.2 Self-introductions

The chair then asked those present in the room to introduce themselves.

1.2.3 Call for guests and journalists

The chair requested members of the press and journalists and those associated with organizations that are not members of T11 to introduce themselves. No person attending the meeting made such an introduction.

1.3 Operating under INCITS Procedures

1.3.1 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.

1.3.2 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

1.3.3 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.

1.3.4 Patent Information

The chair indicated that among the rules and policies under which this Technical Committee operates are the 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.

1.3.4.1 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 the INCITS patent policy, which is publicly available at [INCITS Patent Policy](#).

1.3.5 Call for Patents

1.3.5.1 Patent Information Registry

A template form for a patent declaration that is satisfactory to both INCITS and ISO can be found in [INCITS Patent Declaration Form](#).

No company responded to the call for patents.

2 Attendance and Membership

2.1 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 (entitled “**Membership Clause 2022**”).

2.2 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.

2.3 Membership for this meeting

Technical Committee T11 had 23 voting members at the T11 regular meeting 09 February 2023. With no members losing or gaining voting privileges voting membership of T11 remains at 23 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](#).

2.3.1 Changes in Representation Since the Last Meeting

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

Steven Wilson has been added as an Emeritus member.

Lei Huang was added as an Alternate for Amphenol Corporation. All other representation for Amphenol remains the same.

Alex Hong was added as an Alternate for Broadcom, Inc. All other representation for

Broadcom remains the same.

2.3.2 New Voting Memberships

- No additional companies answered the vice-chair's call so none were granted voting membership at this meeting.

2.3.3 Voting memberships in jeopardy for attendance

- No company is in membership jeopardy for lack of attendance at 2 of the last 3 plenary meetings.

2.3.4 Voting memberships in jeopardy for non-payment of dues

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

2.3.5 Voting memberships in jeopardy for letter ballot performance

- Credo Semiconductor, Corning Inc., and Lumentum Operations are in membership jeopardy for letter ballot performance for not having voted on two of last three T11 letter ballots.

2.3.6 T11 Voting and Advisory memberships for this meeting

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.

2.4 Call for Quorum

The total voting membership for this meeting is 23. One third of the total membership for this meeting is 8. 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 8. A quorum is therefore present for this meeting.

3 Approval of the Agenda

An electronic version of the agenda was posted as T11-2023-00095-v002. The chair presented the agenda with final updates as T11-2023-00001-v003 and made a call for any changes and new agenda items. No changes or new items were requested.

Tom Palkert (Macom) moved and Fred Knight (NetApp) seconded that T11-2023-00095-v003 as presented at this meeting be approved as the agenda for this meeting. The motion passed by acclamation.

4 Minutes of the Previous Meeting

4.1 Review of Old Action Items

23-001	T11 secretary to post approved Minutes of T11 meeting #174 as agreed at T11 meeting #175. Completed by posting T11/2023-00088-v000 on February 15, 2023.
23-002	Chair to forward FC-FS-7 project proposal to INCITS for further processing. Completed by Chair by sending email to Rachel Porter on February 24, 2023 and documented in T11-2023-00094-v000.
23-003	Chair to inform INCITs of the result of the votes regarding standards to be reaffirmed and standards to be stabilized. Completed by Chair by sending email to Rachel Porter on February 24, 2023 and documented in T11-2023-00092-v000.
23-004	Chair to inform INCITs of the vote regarding standards to continue as stabilized. Completed by Chair by sending email to Rachel Porter on February 24, 2023 and documented in T11-2023-00091-v000.
23-005	Chair to forward nomination of Steve Wilson for appointment by the INCITS Executive Board as an Emeritus Member of INCITS/Fibre Channel. Completed by Chair by sending email to Rachel Porter on February 24, 2023 and documented in T11-2023-00093-v000.
23-006	Chair to update meeting location file. Completed by Chair on February 24, 2023.

4.2 Approval of Minutes - Meeting #175

The prior regular meeting of the INCITS Fibre Channel (T11) Technical Committee was #175 on 09 February 2023. The draft Minutes of that meeting were posted as document T11/2023-00065-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.

Tom Palkert (Macom) moved and Kiran Ranabhor (Cisco) seconded to accept T11/2023-00065-

v000 as the Minutes of T11 meeting #175 on 09 February 2023. The motion passed by acclamation.

See action item [23-007](#).

5 Administrative Matters

5.1 Document Distribution

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

6 Technical Committee and Task Group Reports

6.1 Review of T11 Project and Proposal Status

6.1.1 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.

The chair will check with all TG chairs to gather the latest updates and update the project status file.

See action item [23-008](#).

6.1.2 National Project Status Report

The Chair also shared information from INCITS the National Processing Report. The Chair will post [this information](#) in the “T11 Projects” folder in the documents section.

6.1.3 T11 Project Activity

6.1.3.1 FC-FS-7 Project Proposal

The Chair indicated that the FC-FS-7 Project Proposal (contained in T11-2023-00002-v002) was forwarded to INCITS (email contained in T11-2023-00094-v000) and it now has a project reference of FC-FS-7 – INCITS 582-202x: Information Technology – Fibre Channel – Framing and Signaling -7.

6.1.4 Project Proposals

6.1.4.1 FC-LS-6 Project Proposal ([T11-2023-00090-v001](#))

The Chair presented the project proposal for an FC-LS-6 technical working group. Craig Carlson (Marvell) made a motion that we accept T11-2023-00090-v001 as the project proposal for FC-LS-6 and forward to INCITS for further processing. Dave Peterson (Broadcom) seconded the motion. The motion carried: In Favor – 22, Opposed – 0, Abstain – 0.

See action item [23-009](#).

6.2 Results of non-ISO Letter Ballots

6.2.1 None

6.3 Task Group T11.2 - Physical Interfaces

6.3.1 Report to T11 Plenary ([T11-2023-00156-v000](#))

Task Group Chair Tom Palkert (Macom) gave the report posted as T11-2023-00156-v000 on activity at T11.2.

6.3.2 Actions

6.3.2.1 INCITS/Fibre Channel Physical Variants recommends approval of Steve Wilson for appointment by the INCITS Executive Board as an Emeritus member of INCITS/Fibre Channel and INCITS/Fibre Channel Physical Variants as specified in Section 3.9.3.4 , Emeritus Members, in INCITS policies.

Craig Carlson (Marvell) moved and Roger Hathorn (IBM) seconded that INCITS/Fibre Channel approves the recommendation from Fibre Channel Physical Variants of the

appointment of Steve Wilson as Emeritus member of both INCITS/Fibre Channel Physical Variants and INCITS/Fibre Channel.

Motion passed: In Favor – 22, Opposed 0, Abstain – 0.

6.3.3 Other Items

No other items were presented for TG T11.2.

6.4 Task Group T11.3 - Interconnection Schemes

6.4.1 Report to T11 Plenary ([T11-2023-00161-v000](#))

Task Group Chair Craig Carlson (Marvell) presented the information posted as T11-2023-00085-v000 on activity at T11.3.

6.4.2 Actions

6.4.2.1 INCITS/Fibre Channel Interconnection Schemes recommends approval of Steve Wilson for appointment by the INCITS Executive Board as an Emeritus member of INCITS/Fibre Channel and INCITS/Fibre Channel Interconnection Schemes as specified in Section 3.9.3.4, Emeritus Members, in INCITS policies.

Craig Carlson (Marvell) moved and Roger Hathorn (IBM) seconded that INCITS/Fibre Channel approves the recommendation from INCITS/Fibre Channel Interconnection Schemes of the appointment of Steve Wilson as Emeritus member of both INCITS/Fibre Channel Interconnection Schemes and INCITS/Fibre Channel.

Motion passed: In Favor – 22, Opposed 0, Abstain – 0.

6.4.3 Other Items

No other items were presented for TG T11.3.

6.5 Joint TG T11.2 / T11.3 Items

6.5.1 Report to T11 Plenary

There was no meeting during this plenary meeting cycle for the Joint T11.2/T11.3 TG.

6.5.2 Actions

6.5.2.1 There were no actions.

6.5.3 Other Items

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

6.7 Review of International Activity

6.7.1 INCITS Computer Systems Interconnect (SC 25 / WG4 TAG) Status Report ([T11-2023-00109-v000](#))

Dave Peterson (Broadcom) presented the information posted as T11-2023-00109-v000 on INCITS Computer Systems Interconnect (SC 25 / WG4 TAG) project status (see [annex B.2](#)).

7 Liaison Reports

7.1 T11 report ([T11-2023-00099-v000](#)), INCITS Liaison report ([T11-2023-00100-v000](#))

Howard Johnson (Broadcom) presented the information posted as T11-2023-00099-v000 on activity at T11 as reported to other organizations, and the information posted as T11-2023-00100-v000 on activity at INCITS other than T11 project status.

7.2 TC T10 (no report)

No report.

7.3 FCIA (verbal)

Patty Driever (IBM) gave verbal report on activity at FCIA.

7.4 IEEE 802.3 ([T11-2023-00153-v000](#))

Tom Palkert (Macom) and Mabud Choudhury (OFS) gave report T11-2023-00153-v000 on activity at IEEE 802.3.

7.5 INCITS TC CS1 (No report)

7.6 SNIA and SFF ([T11-2023-00162-v000](#))

Fred Knight (NetApp) discussed report T11-2023-00162-v000 on SNIA activities.

SFF is covered in T11.2, thus going forward this agenda item will only cover a report on activities at SNIA.

7.7 NVMe (verbal)

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

8 Old Business

8.1 T11 Project Organization on ICMS ([T11-2023-00007-v002](#))

Dave Peterson (Broadcom) presented again on how we're looking to ensure the structure of ICMS and how we use it are what we need/want it to be.

INCITS wants Ad Hoc(s) changed to Expert Group(s). This may result in a name change.

Dave proposed that we assign the subgroups/expert groups and projects as appropriate to T11.2 and T11.3

Dave also proposed that we formalize document Numbering and File Naming conventions (e.g. T11-2023-xxx-vxx-Descriptive Name). This will be discussed more in the future.

Dave also proposed developing a set of guidelines for Committee and Project Chairs with 'how tos' and 'should dos', another set of guidelines for secretaries, and a third set for new members.

Dave wants to set guidelines that calendar events are created by committee chairs after the meeting map has been approved (at the latest 2 weeks before the meetings). The calendar entry is a solicitation for agenda items.

Dave will also be asking Lynn for some new types of documents.

Dave will be posting a doc on T11 projects for consideration next cycle of moving some to

T11.2 and some to T11.3 as appropriate.

8.2 INCITS Approval of Steve Wilson as an emeritus member ([eb-2023-00228](#))

The Chair reported that the INCITS Executive Board approved the appointment of Steve Wilson as an emeritus member of T11.

This will be reflected in the minutes of this meeting and all meetings going forward.

9 Fibre Channel (T11) New Business

9.1 Room Rates and Meeting Fee Evaluation

Chair indicated that we are getting a lot of pushback from hotels on the 'package pricing' of rooms with meeting facilities. HPN Global is asking if we can break these things out. To do this we would consider asking members attending to pay not only the room rate but also a separate meeting fee (similar to what IEEE does). This meeting fee would apply to those who attend both in-person and virtual.....no difference.

The Chair asked that each member think about this and understand what complications this would bring in their company expense rules.

The Chair also indicated that we may also have to consider raising the hotel rate higher than the existing \$250 cap due to current economic times. Members should also discuss this with their companies and understand the implications.

9.2 Review of INCITS Code of Conduct statement

Effective February 28, 2023 INCITS released a revised Code of Conduct that is to be followed by all participants in INCITS activities. This [Code of Conduct](#) is provided on the INCITS website.

There is a paragraph in this that is unworkable for how T11 operates. We raised objections along with T10 and T13 to the Executive Board on this, and said we cannot operate under this guideline. We have not yet received a response, but the EB did meet yesterday.

9.3 INCITS outreach efforts

The Chair told us that INCITS is now doing a membership outreach where they are trying to encourage member and non-member companies to get involved with INCITS more and standardize more of their stuff. Anyone who wishes to participate in this activity is asked to contact the Chair.

10 Future Meeting Schedule

10.1 Approval of meeting venues and schedule

The chair announced the following schedule for 2023-2024.

Date	Location	Host Organization	Host Person
February 6-10, 2023	Tucson, AZ	FCIA	Chris Lyon
April 3-7, 2023	Coeur d'Alene, ID	Broadcom	Howard Johnson
June 5-9, 2023	tbd	Marvell	Craig Carlson
August 7-11, 2023	tbd	Cisco	Kiran Ranabhor
October 2-6, 2023	tbd	SNIA/SFF	Paul Coddington
December 4-8, 2023	Deerfield Beach, FL	Amphenol	Chris Lyon
February 5-9, 2024			
April 1-5, 2024			
June 3-7, 2024			
August 5-9, 2024			
October 7-11, 2024			
December 2-6, 2024			

The Chair encouraged the member companies to consider sponsoring the 2024 meetings.

10.1.1 June 2023 meeting venue

Craig Carlson (Marvell) described the arrangements Marvell has made for the June 2023 meeting after encountering some difficulties negotiating rates with other hotels/locations.

Craig Carlson (Marvell) made a motion, seconded by Patty Driever (IBM) to approve the Doubletree in Palm Beach Gardens, FL as the June 2023 meeting location. Motion passed: In Favor – 22, Opposed – 0, Abstain – 0.

It will be a hybrid meeting with the face-to-face meeting in Palm Beach, FL hosted by Marvell and the virtual meeting will be using Marvell Zoom facilities.

Chair will update the meeting venue table with this information.

See action item [23-010](#).

10.1.2 June 2023 meeting information (Hybrid, Fibre Channel June 2023)

The Chair pointed everyone to the June meeting information regarding hotel reservations in Palm Beach, Florida.

10.1.3 June 2023 meeting map (Meeting_Map_Jun_2023 F2F.txt)

The vice chair Craig Carlson (Marvell) created and the chair presented the tentative meeting map of the next T11 meeting week. He advised members for the most recent meeting map of the next Fibre Channel regular meeting to go to the INCITS website, search the Fibre Channel Meeting Information folder under June 2023.

Craig Carlson (Marvell) made a motion to accept the meeting map as presented. Tom Palkert (Macom) seconded the motion. Motion passed by acclamation.

10.2 Request for hosts

10.2.1 Guidelines for hosting ([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.

10.2.2 Letter to travel representatives on hotel rates ([T11-2023-00011-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 T11-2023-00011-v000 has been posted which contains a letter to those with budget responsibilities for member organizations justifying this obligation.

10.3 Authorization of adhoc groups and meetings

10.3.1 Authorization for adhoc groups and meetings are approved by their respective TGs

The chair directed members to the ICMS Fibre Channel calendar located at the Fibre Channel 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.

11 Review of Action Items

23-007	T11 secretary to post approved Minutes of T11 meeting #175 as agreed at T11 meeting #176. (See clause 4.2)
23-008	Chair to update Project status file with input from ad hoc committee chairs
23-009	Chair to forward FC-LS-6 project proposal to INCITS for further processing.
23-010	Chair to update meeting location file. See 10.1.1 .

12 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 #176 is shown in annex A.2. 31 people from 22 member (22 voting) organizations were in attendance.

13 Adjournment

Tom Palkert (Macom) moved to adjourn at 2:53 PM PDT. Seconded by Kiran Ranabhor (Cisco). 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

Mr. Roger Cummings

Mr. Steven Wilson

A.1.2 Voting Members

The following is the list of organizations that are voting members of record for regular meeting #176 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	Fan Fu
	Alternate	Isaac Horn
	Alternate	Lie Huang

	Alternate	Sam Kocsis
	Alternate	Alex Persaud
	Alternate	Hu Silver
	Alternate	Michael Wingard
Broadcom	Principal	Howard Johnson
	Alternate	Evan Beauprez
	Alternate	Ben Chu
	Alternate	Robert Hannah
	Alternate	Adam Healey
	Alternate	Alex Hong
	Alternate	Mark Jones
	Alternate	Anil Mehta
	Alternate	Dr. Ramana Murty
	Alternate	David Peterson
	Alternate	James Smart
Cisco	Alternate	Anil Veerabhadrapa
	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	Christian Schmutzer
	Alternate	Shalom Shefa
	Alternate	Sumanth Sindiri
	Alternate	Ramesh Sivakolundu
	Alternate	Yi Tang
Alternate	Xiaohong Wu	
Alternate	Xiaokang Zhu	

CommScope	Principal	Yang (Sunny) Xu
	Alternate	Gary Gibbs
	Alternate	Earl Parsons
Corning	Principal	David Kozischek
Credo Semiconductor	Principal	Phil Sun
	Alternate	Dr. Fang Cai
	Alternate	Yasuo Hidaka
	Alternate	Furui Li
Data Center Systems	Principal	Steve Eisele
	Alternate	Eddie Taylor
Dell	Principal	Erik Smith
	Alternate	Jai Bansai
	Alternate	David Black
	Alternate	David Brown
	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	Roberto Rodes
	Alternate	Lance Thompson
Keysight Technologies	Principal	Stephen Didde
	Alternate	Joachim Vobis

Lumentum Operations	Principal	Ernest Muhigana
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	Mike Dudek
	Alternate	Arun Easi
	Alternate	Robert Friend
	Alternate	Duane Grigsby
	Alternate	Anil Gurumurthy
	Alternate	James Hamada
	Alternate	Andrew Joy
	Alternate	Ali Khwaja
	Alternate	Stephen Lam
	Alternate	Ray Leung
	Alternate	Raymond Liang
	Alternate	Akinori Maeda
	Alternate	Praveen Midhag
	Alternate	Trinh Nguyen
	Alternate	Raul Oteyza
	Alternate	Arun Patil
	Alternate	Eddy Soetjahja
Alternate	Alan Spalding	
Alternate	Gourangadoss Sundar	
Alternate	Andrew Vasquez	
Alternate	Dean Wallace	
MediaTek	Principal	Tamer Ali
	Alternate	Chihlong Dai

	Alternate	Pei-Rong Li
	Alternate	YC Lin
	Alternate	Henry Park
	Alternate	Herbert Wang
	Alternate	Mau-Lin Wu
Molex	Principal	Scott Sommers
	Alternate	Egide Murisa
NetApp	Principal	Frederick Knight
OFS Fitel LLC	Principal	Roman Shubochkin
	Alternate	Mabud Choudhury
Panduit	Principal	Jose Castro
	Alternate	Bulent Kose
	Alternate	Robert Reid
TE Connectivity	Principal	Nathan Tracy
	Alternate	Dwayne Crawford
	Alternate	Daniel Gorenc
	Alternate	Jeff Mason
Teledyne LeCroy	Principal	Henry Poelstra
	Alternate	Amit Bakshi
	Alternate	Craig Foster
	Alternate	Rakesh Kathiresan Natarajan
	Alternate	Nick Kriczky
	Alternate	Douglas Lee
	Alternate	Srikant Tadigadapa
	Alternate	Jim Yasueda
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 #176 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
Futurewei	Principal	Timothy Jeffries
	Alternate	Victor Cao
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 #176 of the INCITS Fibre Channel (T11) Technical Committee:

Organization	Representative(s)	In Person
AMPHENOL CORP	Paul Coddington	N
	Isaac Horn	Y
	Chris Lyon	Y
BROADCOM INC	Howard Johnson	Y
	Mark Jones	N
	David Peterson	Y

CISCO SYSTEMS INC	Mike Blair	Y
	Ramesh Sivakolundu	Y
	Xiaohong Wu	Y
COMMSCOPE	Sunny Xu	N
CORNING INC	David Kozischek	N
CREDO SEMICONDUCTOR	Fang Fu	N
DATA CENTER SYSTEMS	Steve Eisele	N
DELL INC	David Brown	N
HEWLETT PACKARD ENTERPRISE	Barry Maskas	N
IBM CORP	Patty Driever	Y
	Roger Hathorn	Y
II-VI INC	Vera Koleva	N
	Roberto Rodes	N
KEYSIGHT TECHNOLOGIES INC	Stephen Didde	N
MACOM	Thomas Palkert	Y
MARVELL SEMICONDUCTOR	Craig Carlson	Y
	Dean Wallace	Y
MOLEX INC	Egide Murisa	N
NETAPP INC	Frederick Knight	Y
OFS FITEL LLC	Mabud Choudhury	N
PANDUIT CORPORATION	Jose Castro	N
TE CONNECTIVITY	Daniel Gorenc	N
TELEDYNE LECROY CORPORATION	Henry Poelstra	N
	Jim Yaseuda	Y
VIAMI SOLUTIONS INC	Jason Rusch	N

A.2.2 Ad hoc meeting attendance

FC-SW-8 ad hoc, members

Organization	Representative(s)
BROADCOM INC	Howard Johnson
	David Peterson
CISCO SYSTEMS INC	Mike Blair
	Ed Mazurek
IBM CORP	Patty Driever
	Roger Hathorn
MARVELL SEMICONDUCTOR INC	Craig Carlson
NETAPP INC	Frederick Knight

FC-PI-9 ad hoc, members

Organization	Representative(s)
AMPHENOL CORPORATION	Paul Coddington
BROADCOM INC	Ben Chu
	Anil Mehta
	Ramana Murty
CISCO SYSTEMS INC	Kiran Ranabhor
	Ramesh Sivakolundu
	Xiaohong Wu
COMMSCOPE	Gary Gibbs
	Sunny Xu
CORNING INC	David Kozischek
CREDO SEMICONDUCTOR	Fang Cai
DATA CENTER SYSTEMS	Steve Eisele
DELL TECHNOLOGIES INC	David Piehler
II-VI INC	Vera Koleva
KEYSIGHT TECHNOLOGIES INC	Stephen Didde
MACOM	Thomas Palkert
MARVELL SEMICONDUCTOR INC	Mike Dudek
	Raul Oteyza

	Dean Wallace
MEDIATEK USA INC	Henry Park
MOLEX INC	Egide Murisa
OFS FITEL LLC	Mabud Choudhury
PANDUIT CORPORATION	Jose Castro

FC-GS-9 ad hoc, members

Organization	Representative(s)
BROADCOM INC	David Peterson
CISCO SYSTEMS INC	Harsha Bharadwaj Edward Mazurek
HEWLETT PACKARD ENTERPRISE	Barry Maskas
IBM CORPORATION	Roger Hathorn
NETAPP INC	Frederick Knight

FC-LS-5 ad hoc, members

Organization	Representative(s)
BROADCOM INC	Howard Johnson David Peterson
CISCO SYSTEMS INC	Harsha Bharadwaj Edward Mazurek
DELL INC	David Brown
HEWLETT PACKARD ENTERPRISE	Barry Maskas
IBM CORP	Patty Driever Roger Hathorn
MARVELL SEMICONDUCTOR INC	Craig Carlson
NETAPP INC	Frederick Knight

FC-FS-6 ad hoc, members

Organization	Representative(s)
AMPHENOL CORPORATION	Lei Huang
BROADCOM	Howard Johnson
	Anil Mehta
	David Peterson
CISCO SYSTEMS INC	Mike Blair
	Ed Mazurek
	Xiaohong Wu
DELL INC	David Brown
HEWLET PACKARD ENTERPRISE	Barry Maskas
IBM	Patty Driever
	Roger Hathorn
MARVELL SEMICONDUCTOR INC	Craig Carlson
	Raul Oteyza
NETAPP INC	Frederick Knight

FC-RDMA ad hoc, members

Organization	Representative(s)
BROADCOM INC	Howard Johnson
	David Peterson
CISCO SYSTEMS INC	Harsha Bharadwaj
	Mike Blair
DELL INC	David Brown
HEWLETT PACKARD ENTERPRISE	Barry Maskas
IBM CORPORATION	Patty Driever
	Roger Hathorn
MARVELL SEMICONDUCTOR INC	Craig Carlson

NETAPP INC	Frederick Knight
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FC-NVMe-3 ad hoc, members

Organization	Representative(s)
BROADCOM INC	Howard Johnson
	David Peterson
CISCO SYSTEMS INC	Harsha Bharadwaj
	Mike Blair
	Edward Mazurek
DELL INC	David Brown
HEWLETT PACKARD ENTERPRISE	Barry Maskas
IBM CORPORATION	Patty Driever
	Roger Hathorn
MARVELL SEMICONDUCTOR INC	Craig Carlson
NETAPP INC	Frederick Knight

FC-SP-3 ad hoc, members

Organization	Representative(s)
BROADCOM INC	Howard Johnson
	David Peterson
CISCO SYSTEMS INC	Harsha Bharadwaj
	Mike Blair
	Edward Mazurek
DELL INC	David Brown
HEWLETT PACKARD ENTERPRISE	Barry Maskas
IBM CORPORATION	Patty Driever
	Roger Hathorn

MARVELL SEMICONDUCTOR INC	Craig Carlson
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Joint T11.2/T11.3 ad hoc, members

Organization	Representative(s)
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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 #175 held on 09 February 2023.

Standard	Phase	Next Action	Target Date	Chair	Editor	Secretary
Projects in Development Stage						
FC-FS-6	RFC	T11 LB	Apr-23	Peterson	Carlson	Driever
FC-GS-9	WG	RFC	Apr-23	Peterson	Rusch	Blair
FC-LS-5	RFC	T11 LB	Jun-23	Driever	Carlson	Rusch
FC-RDMA	WG	RFC	Jun.23	Carlson	Peterson	Hathorn
FC-SW-8	WG	RFC	Apr 23	Carlson	Peterson	Peterson
FC-NVMe-3	WG	RFC	Oct 23	Carlson	Peterson	Hathorn
FC-SP-3	WG	RFC	TBD	Hathorn	Peterson	Peterson
FC-MSQS-3	WG	TBD	Jun-23	Wallace	Castro	Wallace
FC-PI-9	WG	RFC	Dec 23	Wallace	Rusch	Wallace
Projects in Approval Stage						

FC-PI-8	PR	PUB	Apr-23	Wallace	Rusch	Wallace
Keys: WG = Work Group RFC = Request for Comments LB = Letter Ballot PR = Public Review PUB = Published TBD = To Be Determined						

B.2 INCITS Computer Systems Interconnect (SC 25 / WG4) project status

The following tables indicates the status of all active INCITS Computer Systems Interconnect (SC 25 / WG4) TAG projects. It reflects the official status as reported at the Fibre Channel (T11) regular meeting #176, 06 April 2023 in document T11-2023-00109-v000. The SC 25/WG 4 TAG project database is available in document [sc25-wg4-2018-00011-TAG-Project-Database](#).

B.2.1 Active Fibre Channel (T11) Computer Systems Interconnection (SC25 WG4 TAG) Projects

	ISO/IEC # (T11 allocated)	Status
None at this time		
Potential Items: * FC-PI-8 * FC-FS-6 * FC-LS-5 * FC-GS-9 * FC-SW-8 * FC-SP-3		