



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



T11-2024-00084-v000

Draft Minutes
INCITS Fibre Channel (T11) Committee
Regular Meeting #181
08 February 2024 – 1 PM to 3 PM EST
Tampa, FL (Hybrid Meeting)

1 Opening Remarks and Introductions

1.1 Introductory Remarks

TC T11 chair Howard Johnson (Broadcom) convened regular meeting #181 of the INCITS Fibre Channel (T11) Technical Committee on Thursday, 08 February 2024 at 1:00 PM EST. He introduced himself and thanked our host SNIA/SFF for the physical meeting facilities.

He then introduced Patty Driever (IBM) as the Vice-Chair and Chris Lyon (Amphenol) 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	Patty Driever (IBM)

T11 Secretary	Chris Lyon (Amphenol)
T11.2 Chairman	Tom Palkert (Macom)
T11.2 Vice-Chairman	Anil Mehta (Broadcom)
T11.2 Secretary	Jason Rusch (Viavi)
T11.3 Chairman	Roger Hathorn (IBM)
T11.3 Vice-chairman	Mike Blair (Cisco)
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 one responded to this call.

1.3 Operating under INCITS Procedures (<https://www.incits.org/standards-information/policies>)

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.

The chair indicated that documents are distributed electronically (<http://www.incits.org>) and described the process for T11 document distribution via <http://standards.incits.org>.

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>).

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>.

1.3.4 Patent Policy Information

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](#).

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.

The Chair also pointed to the [INCITS Patent Registry](#) located on the INCITS website.

1.3.5 Call for Patents

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 a description of the Organization and Structure/Categories of Membership/TCs, TGs, and SGs is contained in [INCITS Organization, Policies and Procedures](#).

As an active participant you are encouraged to become a member.

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 22 voting members at the T11 regular meeting 07 December 2023. With no members losing voting privileges (see 2.3.1.2), membership of T11 remains at 22 for this meeting.

2.3.1 Changes in Representation Since the Last Meeting

Wenchao Cui and Ahmad Tawil have been added as Alternate members for Broadcom, Inc., moving over after the Broadcom acquisition of VMWare. All other representation for Broadcom remains unchanged and the remainder of the VMWare representation has been removed (Neil MacLean, Wenhua Liu, and Murali Rajagopal).

Kathy Caballero, Robert Friend, Andrew Joy, Ray Leung, Praveen Midhag, Arun Patil, Alan Spalding, Andrew Vasquez and Dean Wallace have been removed as Alternate members for Marvell Semiconductor, Inc. All other representation for Marvell remains the same.

Anritsu was removed as an Advisory member company.

2.3.1.1 New Voting Memberships

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

2.3.1.2 Voting memberships in jeopardy for attendance, for non-payment of dues, or not voting on letter ballots

- Data Center Systems (DCS) is in jeopardy for lack of attendance at 2 of the last 3 plenary meetings. DCS was present today so is no longer in attendance jeopardy. There are currently no other companies in jeopardy for lack of attendance.
- There were no companies in membership jeopardy for non-payment of dues.
- Panduit Corporation and Lumentum Operations are in membership jeopardy for letter ballot performance for not having voted on two of last three T11 letter ballots.

2.3.2 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.

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](#).

2.4 Call for Quorum

The total voting membership for this meeting is 22. One third of the total membership for this meeting is 8. The number of member organizations that responded to the call for quorum was 21. 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 [T11-2024-00001-v002](#). The chair presented the agenda with final updates as T11-2023-00375-v003 and made a call for any changes and new agenda items. No changes or new items were requested.

Chris Lyon (Amphenol) moved and Tom Palkett (Broadcom) seconded that T11-2024-000001-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

23-031	T11 secretary to post approved Minutes of T11 meeting #179 as agreed at T11 meeting #180. Completed by posting T11/2023-00437-v000 on December 09, 2023.
23-032	Chair to review Expert Group minutes looking for changes to the project schedules and committee chairs/editors/secretaries. Completer by Chair February 8 th 2024
23-033	Chair to forward FC-GS-9 draft standard Rev. 12.07 contained in T11-2023-00117-v003 to INCITS to initiate a letter ballot. Completed by chair (posted at T11-2024-00012-v001) on January 19, 2024.
23-034	Chair to update meeting location file with February/April/June 2024 meeting locations. Completed by Chair on February 1, 2024.

4.2 Approval of Minutes - Meeting #180

The prior regular meeting of the INCITS Fibre Channel (T11) Technical Committee was #180 on 07 December 2023. The draft Minutes of that meeting were posted as document T11/2023-00430-v001.

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.

David Peterson (Broadcom) moved and Chris Lyon (Amphenol) seconded to accept T11/2023-00430-v001 as the Minutes of T11 meeting #180 on 07 December 2023. The motion passed by acclamation.

See action item [24-001](#).

5 Technical Committee and Task Group Reports

5.1 Technical Committee T11 – Fibre Channel

5.1.1 Project Activity

5.1.1.2 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.

It was noted that chair of FCP9 has not been updated in the project folder. Chair to update

See action item [24-002](#).

5.1.1.2 National Project Status Report

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

5.1.2 Project Proposals

No new project proposals during this meeting cycle.

5.1.3 Letter Ballot Results

5.1.3.1 FC-FS-6 Executive Board Approval ([T11-2023-00296-v000](#))

INCITS 562-202x: (FC-FS-6) Information technology - Fibre Channel - Framing and Signaling - 6 (FC-FS-6)
Approval - Project Summary, 14-day Executive Board Ballot, BSR-9 Submission
Start Date: 2024-02-13
End Date: **2024-02-26**

5.1.3.2 FC-GS-9 Public Review ([T11-2024-00012-v001](#))

INCITS 570-202x: (FC-GS-9) Information technology - Fibre Channel –
Generic Services - 9 (FC-GS-9)
Submission of BSR-8 form to ANSI to initiate the 60-day public review
and comment period.
Start Date: 2024-01-30
End Date: **2024-03-29**

5.2 Task Group T11.2 - Physical Interfaces

5.2.1 Report to T11 Plenary ([T11-2024-00083-v000](#))

Task Group Chair Tom Palkert (Macom) gave the report posted as T11-2024-00083-v000 on activity at T11.2.

5.2.2 Actions

There were no actions during this meeting cycle.

5.3 Task Group T11.3 - Interconnection Schemes

5.3.1 Report to T11 Plenary ([T11-2024-00032-v000](#))

Task Group Chair Roger Hathorn (IBM) presented the information posted as T11-2024-00032-v000 on activity at T11.3.

5.3.2 Actions

1) Roger Hathorn (IBM) made a motion to the Chair to accept T11-2023-00040-v010 as RFC ballot comment resolution and forward FC-LS-5 draft standard Rev. 5.23 contained in T11-2023-00373-v002 to INCITS to initiate a letter ballot. Seconded by David Brown(Dell).

Motion carried: In Favor-21, Opposed-0 Abstain-0.

See action item [24-003](#)

2) Roger Hathorn (IBM) made a motion to accept T11-2024-00008-v001 as Letter Ballot resolution and forward FC-GS-9 draft standard Rev12.08 contained in T11-2024-00064-v000 to INCITS to initiate a public review.

Motion carried: In Favor-21, Opposed-0, Abstain- 0.

See action item [24-004](#)

3) Roger Hathorn (IBM) indicated that T11.3 voted to make a recommendation to T11 to support the nomination of Dean Wallace as an Emeritus member of T11.3.

5.4 Joint TG T11.2 / T11.3 Items

5.4.1 Report to T11 Plenary ([T11-2024-00082-v001](#))

T11.2 Joint Task Group Chair Anil Mehta (Broadcom) gave the report posted as T11-2024-00082-v001 on activity at the joint T11.2/T11.3 expert working group.

5.4.2 Actions

5.5.2.1 There were no actions.

5.6 Review of International Activity

5.6.1 INCITS Computer Systems Interconnect (SC 25 / WG4 TAG) Status Report ([T11-2024-00055-v000](#))

Dave Peterson (Broadcom) presented the information posted as T11-2024-00055-v000 on INCITS Computer Systems Interconnect (SC 25 / WG4 TAG) project status (see [annex B.2](#)).

The Chair asked if member companies have a need for ISO approval of standards developed for Fibre Channel. If there is no value we will cease this activity. However if member companies do see a value, a list of specific standards for which such a requirement exists should be supplied to this committee.

Chair to check on status of FC-SP2/AM1.
See action item [24-006](#)

6 Liaison Reports

6.1 T11 report ([T11-2023-00441-v000](#))

Howard Johnson (Broadcom) presented the information posted as T11-2023-00441-v000 on activity at T11 as reported to other organizations.

6.2 INCITS Liaison report ([T11-2024-00002-v000](#))

Howard Johnson (Broadcom) presented the information posted as T11-2024-00002-v000 on activity at INCITS other than T11 project status.

6.3 TC T10 (No report)

There was no report this meeting cycle on activity at T10 provided by Bill Martin, Chair of T10.

6.4 FCIA (verbal)

Chris Lyon gave a verbal report on activity at FCIA.

6.5 IEEE 802.3 ([T11-2024-00081-v000](#))

Tom Palkert (Macom) and Mabud Choudhury (OFS) gave report T11-2024-00081-v000 on activity at IEEE 802.3.

6.6 SNIA Report ([T11-2024-00075-v000](#))

Roger Hathorn gave report T11-2024-00075-v000 on activity at SNIA.

6.7 NVMe (verbal)

There was no report on recent NVMe activities during this meeting cycle.

7 Old Business

7.1 T11 Project Organization on ICMS ([T11-2023-00007-v003](#))

7.1.1 Guidelines for Expert Groups ([T11-2023-00434-v000](#))

Dave Peterson (Broadcom) completed his work on creating guidelines in terms of expectations for chairs/editors/secretaries.

7.1.1.1 Expert Group Agenda template ([T11-2024-00054-v001](#))
Request is that all Expert Group chairs use this template for their future agendas.

7.1.1.2 Expert Group Meeting Notes template ([T11-2024-00035-v001](#))
Request is that all Expert Group secretaries use this template for recording their meeting notes. A new Meeting Notes category was created on ICMS to categorize these files when you post them.

See action item [24-007](#)

7.2 Meeting Attendance and Hosting

7.2.1 Study Group Report ([T11-2023-00381-v002](#))

Chair asked for feedback on any of the options discussed. One person expressed a desire to continue to hybrid meetings, especially providing remote access for guests. It was also pointed out that having some sort of incentive for staying at the conference hotel would be good.

8 Fibre Channel (T11) New Business

8.1 Emeritus member nomination for Dean Wallace ([T11-2024-00039-v000](#))

The Chair made a motion that T11 recommend that INCITS appoint Dean Wallace as Emeritus Member of INCITS/Fibre Channel (i.e., T11). T11.2 and T11.3 have also recommended that Dean be nominated for Emeritus Member status for those Task Groups as well.

Tom Palkert (Macom) seconded the motion. Motion passed by acclamation. Applause all around.

The Emeritus Member title recognizes individuals for their extensive contribution to standards activities and enables INCITS to call on their extensive history and talent for continuity following their retirement from the ICT industry.

. See action item [24-005](#)

9 Future Meeting Schedule

9.1 Approval of schedule, host, and venues

9.1.1 Approval of April 2024 meeting venue

Chris Lyon (FCIA) will be hosting the April 2024 meeting. Due to contract issues, Nashville did not work out and Chris made a motion requesting that we accept The Desoto Hotel in Savannah, GA as the April 2024 meeting venue. Motion was seconded by Dave Peterson (Broadcom). Passed by acclamation. Members are encouraged to make their reservations soon.

9.1.2 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.

9.1.3 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.

9.2 Schedule

9.2.1 Current meeting venues and schedule (2024-2026)

The chair announced the following schedule for 2024-2026.

Date	Location	Host Organization	Host Person
February 5-9, 2024	Tampa, FL	SNIA/SFF	Paul Coddington
April 1-5, 2024	Savannah, GA	FCIA	Chris Lyon
June 3-7, 2024	Bozeman, MT	Broadcom	Dave Peterson
August 5-9, 2024	(tbd)	Cisco	Kiran Ranabhor
October 7-11, 2024	(tbd)	(tbd)	(tbd)
December 2-6, 2024	Deerfield Beach, FL	Amphenol	Chris Lyon
February 3-7, 2025	(tbd)	(tbd)	(tbd)
March 31 – April 4, 2025	(tbd)	(tbd)	(tbd)
June 9 – 13, 2025	(tbd)	(tbd)	(tbd)
August 4-8, 2025	(tbd)	(tbd)	(tbd)
October 6-10, 2025	(tbd)	(tbd)	(tbd)
December 8-12, 2025	(tbd)	(tbd)	(tbd)
February 2-6, 2026	(tbd)	(tbd)	(tbd)
April 13-17, 2026	(tbd)	(tbd)	(tbd)
June 8-12, 2026	(tbd)	(tbd)	(tbd)
August 3-7, 2026	(tbd)	(tbd)	(tbd)
October 5-9, 2026	(tbd)	(tbd)	(tbd)

December 7-11, 2026	(tbd)	(tbd)	(tbd)
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9.2.2 Proposed meeting venues and schedule (2027-2028)

The chair proposed the following schedule for 2027-2028.

Date	Location	Host Organization	Host Person
February 1-5, 2027	(tbd)	(tbd)	(tbd)
April 5-9, 2027	(tbd)	(tbd)	(tbd)
June 7-11, 2027	(tbd)	(tbd)	(tbd)
August 2-5, 2027	(tbd)	(tbd)	(tbd)
October 4-8, 2027	(tbd)	(tbd)	(tbd)
December 6-10, 2027	(tbd)	(tbd)	(tbd)
February 7-11, 2028	(tbd)	(tbd)	(tbd)
April 3-7, 2028	(tbd)	(tbd)	(tbd)
June 5-9, 2028	(tbd)	(tbd)	(tbd)
August 7-11, 2028	(tbd)	(tbd)	(tbd)
October 2-6, 2028	(tbd)	(tbd)	(tbd)
December 4-8, 2028	(tbd)	(tbd)	(tbd)

9.3 Next Meeting

9.3.1 April 2024 meeting information (Hybrid, [April 2024](#))

The Chair pointed everyone to the April meeting information regarding hotel reservations in Savannah, Georgia at the Desoto Hotel.

9.3.2 April 2024 meeting map ([April 2024 Meeting Map](#))

The Vice-Chair Patty Driever (IBM) created and the chair presented the tentative meeting map of the next T11 meeting week. She 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 April 2024.

David Brown (Dell) made a motion to accept the meeting map as presented. Roger Hathorn (IBM) seconded the motion. Motion passed by acclamation.

9.1.2 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.

9.1.3 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.

9.4 Authorization of adhoc groups, expert groups, and meetings

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.

T11.2 chair needs to arrange for Zoom account for T11.2 task group.

See action item [24-008](#)

10 Review of Action Items

24-001	T11 secretary to post approved Minutes of T11 meeting #180 as agreed at T11 meeting #181. (See clause 4.2)
24-002	Chair to update project status to reflect Anil Mehta as chair of FC-PI-9
24-003	Chair to forward FC-LS-5 draft standard Rev. 5.23 contained in T11-2023-00373-v002 to INCITS to initiate a letter ballot.
24-004	Chair to forward GS-9 draft standard Rev 12.08 contained in T11-2024-00064-V000 to INCITS for public review.
24-005	Chair to recommend that INCITS appoint Dean Wallace as Emeritus Member of INCITS/Fibre Channel (i.e., T11). and T11.2, T11.3 task groups See 8.1 .
24-006	Chair check on status of SP2 and AM2 with INCITS
24-007	Chair to create folder for guidelines and templates
24-008	Tom Palkert to establish a ZOOM account for T11.2

11 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 #180 is shown in annex A.2. 32 people from 21 member (21 voting) organizations were in attendance.

12 Adjournment

Chris Lyon (Amphenol) moved to adjourn at 2:45 PM EST. 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 #181 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
Broadcom	Principal	Howard Johnson
	Alternate	Evan Beauprez
	Alternate	Ben Chu
	Alternate	Wenchao Cui
	Alternate	Robert Hannah
	Alternate	Adam Healey
	Alternate	Mark Jones
	Alternate	Anil Mehta
	Alternate	Dr. Ramana Murty
	Alternate	Karl Muth
	Alternate	David Peterson
	Alternate	James Smart
	Alternate	Ahmad Tawil
	Alternate	Anil Veerabhadrappa
	Cisco	Principal
Alternate		Harsha Bharadwaj
Alternate		Dhiraj Kashyap
Alternate		Rajesh L.G.
Alternate		Fabio Maino
Alternate		Edward Mazurek
Alternate		Mark Nowell
Alternate		Prashant Pathak
Alternate		Sai Pavan
Alternate		Kiran Ranabhor
Alternate		Christian Schmutzer
Alternate		Shalom Shefa
Alternate		Sumanth Sindiri
Alternate		Ramesh Sivakolundu

	Alternate	Yi Tang
	Alternate	Sujith V. R.
	Alternate	Xiaohong Wu
	Alternate	Xiaokang Zhu
Coherent Inc	Principal	Vipul Bhatt
	Alternate	Vera Koleva
	Alternate	Roberto Rodes
	Alternate	Lance Thompson
CommScope	Principal	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	David Brown
	Alternate	Jai Bansai
	Alternate	David Black
	Alternate	Doug Farley
	Alternate	David Piehler
	Alternate	Vinay Sawal
	Alternate	Bill Sears
	Alternate	Erik Smith
Hewlett Packard Enterprise	Principal	Joseph White
	Principal	Barry Maskas
	Alternate	Curtis Ballard
	Alternate	Rupin Mohan
IBM	Alternate	Krishna Babu Puttagunta
	Principal	Roger Hathorn
	Alternate	Patty Driever

	Alternate	Stephen Guendert
Keysight Technologies	Principal	Stephen Didde
	Alternate	Joachim Vobis
Lumentum Operations	Principal	Ernest Muhigana
Macom	Principal	Thomas Palkert
Marvell Semiconductor Inc	Principal	Raul Oteyza
	Alternate	Anshul Agarwal
	Alternate	Sanjaya Anand
	Alternate	Qian Banglong
	Alternate	Girish Basrur
	Alternate	Mike Dudek
	Alternate	Arun Easi
	Alternate	Duane Grigsby
	Alternate	Anil Gurumurthy
	Alternate	James Hamada
	Alternate	Ali Khwaja
	Alternate	Stephen Lam
	Alternate	Raymond Liang
	Alternate	Akinori Maeda
	Alternate	Trinh Nguyen
	Alternate	Eddy Soetjahja
Molex	Principal	Scott Sommers
	Alternate	Egide Murisa
NetApp	Principal	Madhu Pai
	Alternate	Sridhar Balasubramanian
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
	Principal	Henry Poelstra
Teledyne LeCroy	Alternate	Amit Bakshi
	Alternate	Craig Foster
	Alternate	Tom Friend
	Alternate	Rakesh Kathiresan Natarajan
	Alternate	Nick Kriczky
	Alternate	Douglas Lee
	Alternate	Srikant Tadigadapa
	Alternate	Jim Yasueda
	Principal	Jason Rusch
Viavi	Alternate	Scott Baxter
	Alternate	George Bullis
	Alternate	Paul Gentieu
	Alternate	

A.1.3 Advisory Members

The following is the list of organizations that are advisory (i.e., nonvoting) members of record for regular meeting #181 of the INCITS Fibre Channel (T11) Technical Committee, including the recognized representatives of each member organization:

Organization	Representative Type	Representative
Ciena	Principal	Stephen Shew
	Alternate	Sebastien Gareau
Futurewei	Principal	Timothy Jeffries
	Alternate	Victor Cao
MediaTek	Principal	Tamer Ali
	Alternate	Chihlong Dai
	Alternate	Pei-Rong Li

	Alternate	YC Lin
	Alternate	Henry Park
	Alternate	Herbert Wang
	Alternate	Mau-Lin Wu
Unisys	Principal	Jeffrey Dremann
	Alternate	Phil Shelton

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

Organization	Representative(s)	In Person
AMPHENOL CORP	Chris Lyon	Y
	Paul Coddington	Y
BROADCOM INC	Ben Chu	N
	Howard Johnson	Y
	Anil Mehta	Y
	Ramana Murty	N
	Dave Peterson	Y
CISCO SYSTEMS INC	Mike Blair	N
	Edward Mazurek	Y
	Ramesh Sivakolundu	Y
	Xiaohong Wu	Y
COHERENT INC	Vera Koleva	N
COMMSCOPE	Earl Parsons	N
CREDO SEMICONDUCTOR	Fang Cai	N
DATA CENTER SYSTEMS	Steve Eisele	N
DELL INC	David Brown	Y
HEWLETT PACKARD ENTERPRISE	Barry Maskas	N

IBM CORP	Patty Driever	Y
	Roger Hathorn	Y
KEYSIGHT TECHNOLOGIES INC	Stephen Didde	Y
LUMENTUM OPERATIONS	Ernest Muhigana	N
MACOM	Thomas Palkert	Y
MARVELL SEMICONDUCTOR	Mike Dudek	N
	Arun Gopalakrishan	Y
	Raul Oteyza	Y
MOLEX INC	Egide Murisa	N
NETAPP INC	Madhu Pai	N
OFS FITEL LLC	Mabud Choudhury	N
PANDUIT CORPORATION	Jose Castro	N
TE CONNECTIVITY	Daniel Gorenc	N
TELEDYNE LECROY CORPORATION	Henry Poelstra	N
VIAVI SOLUTIONS INC	Jason Rusch	Y

A.2.2 Ad hoc meeting attendance

FC-SW-8 expert group, members

Organization	Representative(s)
BROADCOM INC	Howard Johnson
	David Peterson
	James Smart
CISCO SYSTEMS INC	Mike Blair
	Ed Mazurek
DELL INC	David Brown
IBM CORP	Roger Hathorn

NETAPP INC	Madhu Pai
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FC-PI-9 expert group, members

Organization	Representative(s)
AMPHENOL CORPORATION	Lei Huang
	Paul Coddington
BROADCOM INC	Ben Chu
	Anil Mehta
CISCO SYSTEMS INC	Ramesh Sivakolundu
	Xiaohong Wu
CREDO SEMICONDUCTOR	Fang Cai
DATA CENTER SYSTEMS	Steve Eisele
KEYSIGHT TECHNOLOGIES INC	Stephen Didde
MACOM	Thomas Palkert
MARVELL SEMICONDUCTOR INC	Mike Dudek
	Arun Gopalakrishna
OFS FITEL LLC	Mabud Choudhury
PANDUIT CORPORATION	Jose Castro
TELEDYNE LECROY CORPORATION	Henry Poelstra

FC-GS-9 expert group, members

Organization	Representative(s)
BROADCOM INC	David Peterson
	James Smart
CISCO SYSTEMS INC	Mike Blair
	Edward Mazurek
DELL INC	David Brown
HEWLETT PACKARD ENTERPRISE	Barry Maskas
IBM CORPORATION	Roger Hathorn

MARVELL SEMICONDUCTOR INC	Raul Oteyza
NETAPP INC	Madhu Pai
VIAVI SOLUTIONS INC	Jason Rusch

FC-LS-5 expert group, members

Organization	Representative(s)
BROADCOM INC	Howard Johnson
	David Peterson
	James Smart
CISCO SYSTEMS INC	Harsha Bharadwaj
	Edward Mazurek
DELL INC	David Brown
IBM CORP	Patty Driever
	Roger Hathorn
MARVELL SEMICONDUCTOR INC	Raul Oteyza
NETAPP INC	Madhu Pai
VIAVI SOLUTIONS INC	Jason Rusch

FC-FS-7 expert group, members

Organization	Representative(s)
BROADCOM	Howard Johnson
	David Peterson
	James Smart
CISCO SYSTEMS INC	Harsha Bharadwaj
	Mike Blair
	Edward Mazurek
DELL INC	David Brown
IBM	Patty Driever
	Roger Hathorn

MARVELL SEMICONDUCTOR INC	Raul Oteyza
NETAPP INC	Madhu Pai
VIAVI SOLUTIONS INC	Jason Rusch

FC-RDMA expert group, members

Organization	Representative(s)
BROADCOM INC	Howard Johnson
	Dave Peterson
	James Smart
CISCO SYSTEMS INC	Harsha Bharadwaj
	Mike Blair
	Edward Mazurek
DELL INC	David Brown
IBM CORPORATION	Patty Driever
	Roger Hathorn
MARVELL SEMICONDUCTOR INC	Raul Oteyza
NETAPP INC	Madhu Pai
VIAVI SOLUTIONS INC	Jason Rusch

FC-NVMe-3 expert group, members

Organization	Representative(s)
BROADCOM INC	Howard Johnson
	David Peterson
	James Smart
CISCO SYSTEMS INC	Harsha Bharadwaj
	Edward Mazurek
DELL INC	David Brown
IBM CORPORATION	Patty Driever
	Roger Hathorn

MARVELL SEMICONDUCTOR INC	Raul Oteyza
NETAPP INC	Madhu Pai
VIAVI SOLUTIONS INC	Jason Rusch

FC-SP-3 expert group, members

Organization	Representative(s)
BROADCOM INC	Howard Johnson
	David Peterson
	James Smart
CISCO SYSTEMS INC	Mike Blair
	Edward Mazurek
DELL INC	David Brown
HEWLETT PACKARD ENTERPRISE	Barry Maskas
IBM CORPORATION	Patty Driever
	Roger Hathorn
MARVELL SEMICONDUCTOR INC	Arun Gopalakrishna
	Raul Oteyza
NETAPP INC	Madhu Pai
VIAVI SOLUTIONS INC	Jason Rusch

Joint T11.2/T11.3 expert group, members

Organization	Representative(s)
Amphenol Corporation	Paul Coddington
Broadcom Inc	Howard Johnson
	Anil Mehta
	David Peterson
	James Smart
Cisco Systems Inc	Mike Blair
	Edward Mazurek

	Ramesh Sivakolundu
	Xiaohong Wu
Coherent Inc	Vera Koleva
Dell Inc	David Piehler
Hewlett Packard Enterprise	Barry Maskas
IBM Corporation	Patty Driever
	Roger Hathorn
Macom	Thomas Palkert
Marvell Semiconductor Inc	Mike Dudek
	Arun Gopalakrishna
	Raul Oteyza
Molex Inc	Egide Murisa
NetApp Inc	Madhu Pai
OFS Fitel LLC	Mabud Choudhury
TE Connectivity	Daniel Gorenc

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 #179 held on 05 October 2023.

Standard (document link)	Expert Group Officers			Current Activity		Schedule			
	Chair	Editor	Secretary	Phase	Next Action	Last Technical Input	RFC Ballot	Letter Ballot	Forward to INCITS
FC-FS-7	Oteyza	Peterson	Driever	WG	RFC	June 2025	Dec 2025	Aug 2026	Oct 2026

(Project Proposal)		(acting editor)							
FC-GS-9 (Latest draft)	Peterson	Rusch	Blair	RFC	T11 LB	Jun 2022	Apr 2023	Oct 2023	Feb 2024
FC-LS-5 (Latest draft)	Driever	Peterson (acting editor)	Rusch	RFC	T11 LB	Oct 2020	Dec 2022	Feb 2024	April 2024
FC-MSQS-3 (Latest draft)	Wallace	Castro	Wallace	WG	TBD				
FC-NVMe-3 (Latest draft)	Brown	Peterson	Hathorn	WG	RFC	Apr 2024	Aug 2024	Dec 2025	Feb 2025
FC-PI-9 (Project proposal)	Mehta	Rusch	Rusch	WG	RFC	Feb 2026	Apr 2026	Jun 2026	Dec 2026
FC-RDMA (Latest draft)	Brown	Peterson	Hathorn	WG	RFC	Jun 2024	Oct 2024	Feb 2025	Jun 2025
FC-SP-3 (Latest draft)	Hathorn	Peterson	Peterson	WG	RFC	Jun 2024	Oct 2024	Apr 2025	Jun 2025
FC-SW-8 (Latest draft)	Peterson (acting chair)	Peterson	Peterson	WG	RFC	Apr 2022	Apr 2023	Apr 2024	Jun 2024
<i>Projects in Approval</i>									
FC-FS-6 (Latest draft)	Peterson	Carlson	Driever	RFC	T11 LB	Aug 2022	Oct 2022	Jun 2023	Oct 2023
FC-PI-8 (Last draft)	Wallace	Rusch	Wallace	PR	PUB		Apr 2022	Aug 2022	Oct 2022
FC-SP-2/AM2 (Last draft)	Hathorn	Peterson	Peterson	PR	PUB	Apr 2022	Aug 2022	Oct 2022	Oct 2022

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 #181, 08 February 2024 in document T11-2024-00055-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		