

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



T11-2021-00095-v000

Draft Minutes INCITS Fibre Channel (T11) Technical Committee Regular Meeting #164 08 April 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 #164 of the INCITS Fibre Channel (T11) Technical Committee on Thursday, 08 April 2021 at 1:00 PM CDT. He introduced himself and thanked our host Marvell for the virtual meeting facilities.

He next introduced Patty Driever (IBM) as secretary (Vice-Chair Craig Carlson (Marvell) was unable to attend but provided the necessary documents that are the responsibility of the Vice-Chair).

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 guestions about

the policy should be referred to the questioner's legal counsel or the ANSI General Counsel.

1.3.2 Antitrust Guidelines

The chair indicated that among the rules and policies under which this Technical Committee operates are the INCITS Antitrust Guidelines as specified in http://www.incits.org/standards-information/legal-info. Any person present at the meeting is responsible for objecting if he believes discussion in the meeting violates those guide- lines. As examples, there should never be discussion of the following topics at any INCITS or INCITS subgroup meeting:

| Any company's prices or pricing policies; |
|--|
| Specific R&D, sales and marketing plans; |
| Any company's confidential product, product development or production strategies; |
| Whether certain suppliers or customers will be served; |
| Prices paid to input sources; or |
| Complaints about individual firms or other actions that might tend to hinder a competitor in any market. |
| If such discussion is not immediately terminated, it is the chairperson's responsibility to terminate the meeting. |
| 1.3.3 Code of Conduct The chair reminded everyone that we are operating under the INCITS Code of Conduct (found at https://www.incits.org/standards-information/policies). The General Principles of this code include: |
| 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

T11-2021-00095-v000 Prepared 08 April 2021

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 T11-2021-00069-v001. The chair presented the agenda with final updates as T11-2021-00069-v002 and made a call for any changes and new agenda items. No changes or new items were requested.

David Rodgers (Teledyne-LeCroy) moved and Barry Maskas (HPE) seconded that T11-2021-00069-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 added as Alternate and Rob Peterson was removed as Alternate for Broadcom, Inc. Other representation for Broadcom remains the same.

Joe Pelissier was removed as Alternate for Cisco Systems, Inc. Other representation for

Cisco remains the same.

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

Steve Sekel was removed as Alternate for Keysight Technologies, Inc. Other representation for Keysight remains the same.

Raymond Liang was added as Alternate for Marvell Semiconductor, Inc. Other representation for Marvell remains the same.

3.3 New Voting Memberships

No additional companies were granted voting membership at this meeting.

3.4 Voting memberships in jeopardy for attendance

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

3.5 Voting memberships in jeopardy for non-payment of dues

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

3.6 Voting memberships in jeopardy for letter ballot performance

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 04 February 2021. With no members losing voting privileges, and no members gaining voting privileges the voting membership of T11 remains at 17 for this meeting.

Reflecting the above changes, the voting membership of T11 for this meeting is recorded in annex A.1.2.

Reflecting the above changes, the advisory (i.e., nonvoting) membership of T11 for this meeting is recorded in annex A.1.3.

3.8 Call for members of the press and journalists

The chair requested members of the press and journalists to introduce themselves. No person attending the meeting made such an introduction.

3.9 Call for Quorum

The total membership for this meeting is 17. One third of the total membership for this meeting is 6. The number of member organizations that responded to the call for quorum was 16. This exceeds or equals one third of the total membership for this meeting and also exceeds or equals 6. A quorum is therefore present for this meeting.

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 #163

The prior regular meeting of the INCITS Fibre Channel (T11) Technical Committee was #163 on 04 February 2021. The draft Minutes of that meeting were posted as document T11/2021-00049-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 in action item 21-001, as the meeting numbers referenced were incorrect. It should read "T11 secretary to post approved Minutes of T11 meeting #162 as agreed at T11 meeting #163".

David Rodgers (Teledyne-LeCroy) moved and Roger Hathorn (IBM) seconded to accept T11/2021-00049-v000 as modified as the Minutes of T11 meeting #163 on 04 February 2021. The motion passed by acclamation.

See action item 21-004.

6 Review of Old Action Items

| 21-001 | T11 secretary to post approved Minutes of T11 meeting #162 as agreed at T11 meeting #163. Completed by posting T11-2021-00051-v000 on February 05, 2021. |
|--------|--|
| 21-002 | T11 Chair to send letter to INCITS indicating the results of the motions related to National Maintenance Reviews. See <u>Clause 15.1.</u> Completed by Chair by email to Rachel Porter (T11-2021-00061-v000) on February 09, 2021. |
| 21-003 | T11 Chair to reach out to INCITS Secretariat regarding current status of embargoed countries. Refer to email from Jennifer Garner issued on July 2, 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 <u>annex B.1</u>). 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 (T11-2021-00112-v000)

Task Group chair Tom Palkert (Macom) gave the report posted as T11-2021-00112-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 (T11-2021-00107-v000)

Task Group vice-chair Roger Hathorn (IBM) presented the information posted as T11-2021-00107-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 (T11-2021-00108-v000)

The chair referred everyone to the information posted as T11-2021-00108 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 (T11-2021-00079-v000)

Dave Peterson (Broadcom) presented the information posted as T11-2021-00079-v000 on INCITS SC 25 / WG4 TAG project status (see annex B.2).

15 T11 New Business

15.1 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

Page 10 of 29

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 (T11-2021-00062-v000), INCITS Liaison report (T11-2021-00085-v000)

Steve Wilson (Broadcom) presented the information posted as T11-2021-00062-v000 on activity at T11 as reported to other organizations, and the information posted as T11-2021-00085-v000 on activity at INCITS other than T11 project status.

17.2 TC T10 (T11-2021-00106-v000)

Fred Knight (NetApp) gave report T11-2021-00106 on activity at T10.

17.3 FCIA (T11-2021-00109-v000)

Chris Lyon (Amphenol) gave report T11-2021-00109-v000 on activity at FCIA.

17.4 IEEE 802.3 (T11-2021-00113-v000)

Tom Palkert (Macom) and Mabud Choudhury (OFS) gave report T11-2021-00113-v000 on activity at IEEE 802.3.

17.5 INCITS TC CS1 (None)

17.6 SNIA and DMTF (T11-2021-00101-v000)

Fred Knight (NetApp) discussed report T11-2021-00101-v000 on SNIA and DMTF activities.

17.7 NVMe (verbal)

Dave Peterson (Broadcom) 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 07-10 June 2021.

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

For members who are considering hosting future plenary meetings, the chair directed their attention to "Guidelines for hosting T11 Plenary Weeks" T11-2017-00151-v000. This information includes guidelines for hosting a T11 meeting week and room night histories of past meeting weeks. This is required reading for those who are considering hosting because it summarizes the needs of the committee for meeting facilities and gives considerations that may reduce costs for the host.

Groups arranging to meet with T11 were strongly advised to confirm with the host any changes in their needs for meeting space well before the meeting. Failure to do so could easily cause serious inconvenience to the host and/or the group.

19.3 Request for hosts and 2020-2021 meeting schedule

The chair announced the following schedule for 2021-2022.

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

| April 4-8, 2022 | tbd | tbd | tbd |
|--------------------|-----|-----|-----|
| June 6-10, 2022 | tbd | tbd | tbd |
| August 8-12, 2022 | tbd | tbd | tbd |
| October 3-7, 2022 | tbd | tbd | tbd |
| December 5-9, 2022 | tbd | tbd | tbd |

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

19.4 Approval of Meeting Venues

19.4.1 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 has been exploring the idea of moving to a hybrid approach (some members meet in person and others can continue to participate remotely) starting in August. INCITS had initially expressed openness to this idea, but has recently indicated they want to remain virtual through the end of 2021. The Chair indicated that the INCITS Executive Board will be asked to revisit this decision at their meeting next week and he will report back to T11 on the results of that discussion.

See action item 21-005.

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 June 07-10, 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) 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 T11 regular meeting to go to the INCITS website, search the T11 Meeting Information folder under June 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 #164 is shown in annex A.2. 27 people from 17 member (16 voting) organizations were in attendance.

21 Review of Action Items

21-004

T11 secretary to post approved Minutes of T11 meeting #163 as agreed at T11 meeting #164. (See <u>clause 5</u>)

| 21-005 | T11 Chair to notify T11 of results of discussions at INCITS Executive Board regarding face-to-face/hybrid meetings. See Clause 19.4.1. |
|--------|--|
| 21-006 | T11 chair to update T11 Future Meeting Schedule to change June 2021 meeting back to a virtual meeting. See Clause 19.4. |

22 Adjournment

Chris Lyon (Amphenol) moved 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 #164 of the INCITS Fibre Channel (T11) Technical Committee, including the recognized representatives of each member organization:

| Organization | Representative Type | Representative |
|--------------|---------------------|------------------|
| | Principal | Sam Kocsis |
| | Alternate | Brad Brubaker |
| | Alternate | Paul Coddington |
| | Alternate | Daniel Dillow |
| Amphenol | 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 | Robert Hannah |
| | Alternate | Adam Healey |
| | Alternate | Howard Johnson |
| | Alternate | Mark Jones |
| | Alternate | Anil Mehta |
| | Alternate | David Peterson |
| | Alternate | James Smart |
| | Alternate | Anil Veerabhadrappa |
| | Principal | Mike Blair |
| | Alternate | Harsha Bharadwaj |
| | Alternate | Rajesh L.G. |
| | Alternate | Fabio Maino |
| | Alternate | Edward Mazurek |
| Cisco | Alternate | Mark Nowell |
| Cisco | Alternate | Sai Pavan |
| | Alternate | Kiran Ranabhor |
| | Alternate | Shalom Shefa |
| | Alternate | Sumanth Sindiri |
| | Alternate | Ramesh Sivakolundu |
| | Alternate | Xiaohong Wu |
| Commscope | Principal | Yang (Sunny) Xu |
| Соппизсоре | Alternate | Gary Gibbs |
| Corning | Principal | David Kozischek |
| Conning | Alternate | Steven E. Swanson |
| DCS | Principal | Steve Eisele |
| | Alternate | Rodney Jacks |
| | Principal | Erik Smith |
| Dell | Alternate | David Black |
| Dell | Alternate | David Brown |
| | Alternate | Gaurav Chawla |

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

| | Alternate | Raymond Liang |
|-----------------|-----------|-----------------------------|
| | Alternate | |
| | | Akinori Maeda |
| | Alternate | Praveen Midha |
| | Alternate | Trinh Nguyen |
| | Alternate | Raul Oteyza |
| | Alternate | 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 |
| UFS | Alternate | Mabud Choudhury |
| | Principal | David Rodgers |
| | Alternate | Amit Bakshi |
| Tolodyno LoCroy | Alternate | Rakesh Kathiresan Natarajan |
| Teledyne LeCroy | Alternate | Douglas Lee |
| | Alternate | Henry Poelstra |
| | Alternate | Srikant Tadigadapa |
| | Principal | Jason Rusch |
| Viavi | Alternate | Scott Baxter |
| Viavi | 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 #164 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 |
| | Principal | Phil Sun |
| Credo Semiconductor | Alternate | Yasuo Hidaka |
| | Principal | Timothy Jeffries |
| Futurewei | Alternate | Victor Cao |
| | Alternate | Chaohong (Henry) Hu |
| Lumentum Operations | Principal | David Lewis |
| Zamentam operations | Principal | Tamer Ali |
| | Alternate | Chihlong Dai |
| MediaTek | Alternate | Herbert Wang |
| | Alternate | Mau-Lin Wu |
| | Principal | Alexandra Haser |
| Molex | Alternate | Scott Sommers |
| | Principal | Jose Castro |
| Panduit | Alternate | Bulent Kose |
| | Alternate | Robert Reid |
| | Principal | Nathan Tracy |
| TE Connectivity | 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 #164 of the INCITS Fibre Channel (T11) Technical Committee:

| Organization | Representative(s) |
|--|---|
| AMPHENOL CORP | Paul Coddington |
| AMPHENOL CORP | Chris Lyon |
| | Ben Chu |
| BROADCOM INC | Howard Johnson |
| BROADCOW INC | David Peterson |
| | Steven L. Wilson |
| | Mike Blair |
| CISCO SYSTEMS INC | Edward Mazurek |
| | Ramesh Sivakolundu |
| COMMSCOPE | Sunny Xu |
| CORNING INC | David Kozischek |
| DATA CENTER SYSTEMS | Steve Eisele |
| DELL INC | Erik Smith |
| | Barry Maskas |
| HEWLETT PACKARD ENTERPRISE | Krishna Babu Puttagunta |
| IBM CORD | Patty Driever |
| IBIVI CORP | Roger Hathorn |
| II VI INO | Vera Koleva |
| II-VI IIVC | Lance Thompson |
| KEYSIGHT TECHNOLOGIES INC | Stephen Didde |
| MACOM | Thomas Palkert |
| MARVELL SEMICONDUCTOR | Dean Wallace |
| NETAPP INC | Frederick Knight |
| OFS FITEL LLC | Mabud Choudhury |
| DELL INC HEWLETT PACKARD ENTERPRISE IBM CORP II-VI INC KEYSIGHT TECHNOLOGIES INC MACOM MARVELL SEMICONDUCTOR NETAPP INC | Erik Smith Barry Maskas Krishna Babu Puttagunta Patty Driever Roger Hathorn Vera Koleva Lance Thompson Stephen Didde Thomas Palkert Dean Wallace Frederick Knight |

| PANDUIT CORPORATION | Jose Castro |
|------------------------------|----------------|
| TELEDVALE LEODOV CODDODATION | Henry Poelstra |
| TELEDYNE LECROY CORPORATION | David Rodgers |

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) |
|-----------------------------|-------------------------|
| AMPHENOL CORP | Chris Lyon |
| | Howard Johnson |
| | David Peterson |
| BROADCOM INC | James Smart |
| | Anil Veerabhadrappa |
| | Steven Wilson |
| | Harsha Bharadwaj |
| CISCO SYSTEMS INC | Mike Blair |
| | Edward Mazurek |
| HEWLETT PACKARD ENTERPRISE | Barry Maskas |
| TIEWEETT FACKARD ENTERFRISE | Krishna Babu Puttagunta |
| DELL INC | David Brown |
| HEWLETT PACKARD ENTERPRISE | Barry Maskas |
| IBM CORP | Roger Hathorn |
| NETAPP INC | Frederick Knight |

FC-PI-8 ad hoc, members

| Organization Rep | oresentative(s) |
|------------------|-----------------|
|------------------|-----------------|

| AMPHENOL CORPORATION | Sam Kocsis |
|-----------------------------|--------------------|
| BROADCOM INC | Ben Chu |
| | Anil Mehta |
| | Steven Wilson |
| CISCO SYSTEMS INC | Ramesh Sivakolundu |
| CIGCO STOTEWS INC | Xiaohong Wu |
| CORNING INC | David Kozischek |
| DATA CENTER SYSTEMS | Steve Eisele |
| DELL INC | David Piehler |
| II-VI INC | 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) |
|-------------------|---------------------|
| | Howard Johnson |
| BROADCOM INC | David Peterson |
| BROADCOW INC | James Smart |
| | Anil Veerabhadrappa |
| CISCO SYSTEMS INC | Mike Blair |

| | Edward Mazurek |
|----------------------------|--------------------|
| | Rakesh Sivakolundu |
| HEWLETT PACKARD ENTERPRISE | Barry Maskas |
| | Jim Allen |
| IBM CORP | Dan Eisenhaur |
| | Roger Hathorn |
| MARVELL SEMICONDUCTOR INC | Craig Carlson |
| NETAPP INC | Frederick Knight |
| VIAVI SOLUTIONS INC | Jason Rusch |

FC-LS-5 ad hoc, members

| Organization | Representative(s) |
|----------------------------|---------------------|
| | Howard Johnson |
| BROADCOM INC | Dave Peterson |
| BROADCOW INC | James Smart |
| | Anil Veerabhadrappa |
| | Harsha Bharadwaj |
| CISCO SYSTEMS INC | Mike Blair |
| | Edward Mazurek |
| HEWLETT PACKARD ENTERPRISE | Barry Maskas |
| IBM CORP | 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 Veerabhadrappa |
| | Steven Wilson |
| CISCO | Mike Blair |
| CISCO | Ed Mazurek |
| DELL INC | David Brown |
| HEWLETT PACKARD ENTERPRISE | Barry Maskas |
| IBM | Roger Hathorn |
| MARVELL SEMICONDUCTOR INC | Craig Carlson |
| | Raul Oteyza |
| NETAPP INC | Frederick Knight |
| TELEDYNE LECROY CORPORATION | Henry Poelstra |

FC-PM ad hoc, members

| Organization | Representative(s) |
|----------------------------|---------------------|
| BROADCOM INC | Howard Johnson |
| | David Peterson |
| | James Smart |
| | Anil Veerabhadrappa |
| | Steven Wilson |
| | Mike Blair |
| CISCO SYSTEMS INC | Edward Mazurek |
| | Ramesh Sivakolundu |
| DELL INC | David Brown |
| HEWLETT PACKARD ENTERPRISE | Barry Maskas |

| IBM CORPORATION | Roger Hathorn |
|---------------------------|------------------------------|
| MARVELL SEMICONDUCTOR INC | Craig Carlson Raul Oteyza |
| NETAPP INC | Frederick Knight |

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

| Organization | Representative(s) | | |
|----------------------------|--------------------|--|--|
| | Ben Chu | | |
| | Howard Johnson | | |
| BROADCOM INC | Anil Mehta | | |
| | David Peterson | | |
| | Steven Wilson | | |
| | Mike Blair | | |
| CISCO SYSTEMS INC | Edward Mazurek | | |
| | Ramesh Sivakolundu | | |
| COMMSCOPE | Sunny Xu | | |
| DELL INC | David Brown | | |
| HEWLETT PACKARD ENTERPRISE | Barry Maskas | | |
| IBM CORPORATION | Roger Hathorn | | |
| II-VI INC | Vera Koleva | | |
| KEYSIGHT TECHNOLOGIES | Stephen Didde | | |
| MARVELL SEMICONDUCTOR INC | Craig Carlson | | |
| | Mike Dudek | | |
| NETAPP INC | Frederick Knight | | |
| OFS FITEL LLC | Mabud Choudhury | | |

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 #164 held on 08 April 2021.

| Standard | Status | Action | Target or Reaffirm Date | Editor | Ad Hoc Chair | Secretary |
|-----------------|---------------|---------|----------------------------|----------|--------------|-----------|
| Projects in Dev | velopment Sta | age | I | 1 | l | |
| 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 App | oroval Stage | | | | I | |
| . | | | | | | |

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 #164, 08 April 2021 in document T11-2021-00079-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 |
| | | 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 CDIS text was submitted to IEC for further processing. FDIS ballot should be issued shortly. 12/7/20 – Sent email requesting |