Minutes
T11.3 FC-FS-6 ad hoc work group regular meeting
08 December 2021 – 04:30PM – 06:00PM EST
Deerfield Beach, FL (Hybrid)

The FC-FS-6 ad hoc work group of the Fibre Channel Protocol (T11.3) Task Group held a regular meeting in Deerfield Beach, FL hosted by Amphenol along with virtual conferencing facilities using the Zoom platform provided by Marvell on 08 December 2021. Attendance was 8 people from 5 organizations and is tabulated at the end of this document.

Minutes were taken by Patty Driever (IBM) (pgd@us.ibm.com). Corrections may be requested either before the subsequent meeting by email to pgd@us.ibm.com or at the subsequent meeting in person.

1 Opening remarks & Introductions

Chairperson Dave Peterson (Broadcom) opened the regular meeting Wednesday, 08 December 2021 at 02:03 PM EST. He thanked our in-person host organization, Amphenol, along with Marvell for setting up the Zoom meeting, and led a round of introductions.

1.1 Attendance and Membership

The chair explained that attendance is recorded electronically at www.incits.org and explained the procedure. Attendance at this meeting does not count toward attendance at the plenaries of T11 and its task groups (i.e., being here will not get you out or keep you out of membership jeopardy). The chair stated that all persons present are considered members of this meeting and may vote on questions, limited to one vote per company present. He advised that although T11 does not limit participation in the activities of its work groups to representatives of T11 member organizations, it requires nonmembers to identify themselves as such. Nonmembers that expect they may participate in the activities of T11 regularly were encouraged to become members.

1.2 Code of Conduct

The chair referenced the INCITS Code of Conduct and suggested everyone become familiar with its content. It can be found on the INCITS website at the following link: https://standards.incits.org/apps/group_public/document.php?document_id=124850&wg_abbrev=eb

It will be reviewed at the plenary meetings and in all Ad Hoc meetings as well.

1.3 Patents

The chair indicated that among the rules and policies under which this working group operates are the ANSI intellectual property policies as specified in pages 1-3 of http://www.incits.org/pat_slides.pdf. 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.

1.4 Antitrust

The chair indicated that among the rules and policies under which this working group operates are the INCITS Antitrust Guidelines. Any member of 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. The INCITS Antitrust Guidelines are available at http://www.incits.org/inatrust.htm.

2 Approval of Agenda

An agenda for the FC-FS-6 ad hoc work group regular meeting 08 December 2021 has been posted as T11-2021-00324-v000.

Fred Knight (NetApp) moved and Roger Hathorn (IBM) seconded to accept T11-2021-00324-v000 as the agenda for this regular meeting. Approved unanimously.

3 Review of Past Business

3.1 Review of Minutes

Minutes for the FC-FS-6 ad hoc work group regular meeting 06 October 2021 have been posted as T11/2021-00267-v000.

Ed Mazurek (Cisco) moved and Roger Hathorn (IBM) seconded to accept T11/2021-00267-v000 as the minutes of the FC-FS-6 ad hoc work group meeting on 06 October 2021. Approved unanimously.

3.2 Review of Old Action Items

Action Items Carried Forward:

2108-03   Editor to incorporate T11-2021-00132-v000 (BLSs – Mandatory or Optional) for inclusion in FC-FS-6.   **(CARRY)**

New Action Items Identified Last Meeting:

2110-01   Chair to request T11.3 accept the FC-NVMe-3 project proposal as documented in T11-2021-00188-v003 and forwarded for further processing. **(COMPLETED)**

2110-02   Chair to request T11.3 accept the FC-SP-2 AM2 project proposal as documented in T11-2021-00250-v000 and forwarded for further processing.   **(COMPLETED)**

2110-03   Editor to incorporate T11-2021-00133-v000 (Platform Name) for inclusion in FC-FS-6.   **(CARRY)**

2110-04   Dave Peterson to post T11-2021-00248-v001 (Name Identifier Format) with modifications agreed to today.   **(COMPLETED)**

2110-05   Editor to incorporate T11-2021-00248-v001 (Name Identifier Format) for inclusion in FC-FS-6.   **(CARRY)**

2110-06	Dave Peterson to post T11-2021-00131-v003 (In/Out of Order Cleanup) with modifications agreed to today. **(COMPLETED)**
2110-07	Editor to incorporate T11-2021-00131-v003 (In/Out of Order Cleanup) for inclusion in FC-FS-6. **(CARRY)**
2110-08	Dave Peterson to post document of comments on FC-SP-2 AM1 from the ISO/IEC Council for group access. **(COMPLETED)**

4 Old Business

4.1 End-to-end Data Protection with Encryption - Negotiation (T11-2021-00087-v001) Carlson (Marvell)

This one is 'on-hold' for now until further discussion in the FC-SP-2 AM2 project ad hoc.

4.2 Update FC-4 TYPE code 29h (2021-00274-v000) Peterson (Broadcom)

This discussion is being put on hold for this meeting cycle.

5.0 New Business

5.1 Editorial Comments on FS-6 r0.3 (2021-00305-v001) Oteyza (Marvell)

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Raul presented on feedback from the FC-PI-8 group for suggested editorial and technical changes. A few changes were made to the proposal, but basically all agreed to.
Dave Peterson (Broadcom) made a motion, seconded by Craig Carlson (Marvell) to approve 2021-00305-v002 for incorporation into FC-FS-6. Motion carried unanimously.

5.2 FS-6 Figure 45 & Figure 47 changes (2021-00291-v000) Oteyza (Marvell)

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Raul presented (in .ppt form) changes requested to Figures 45 and 47 of the current FC-FS-6 draft. All were accepted.
Dave Peterson (Broadcom) made a motion, seconded by Craig Carlson (Marvell) to approve 2021-00291-v000 for incorporation into FC-FS-6. Motion carried unanimously.

5.3 FS-6 Figure 44 & Figure 46 changes (2021-00290-v000) Oteyza (Marvell)

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Raul presented (in .ppt form) changes requested to Figures 44 and 46 of the current FC-FS-6 draft. All were accepted.
Raul Oteyza (Marvell) made a motion, seconded by Dave Peterson (Broadcom) to approve 2021-00290-v000 for incorporation into FC-FS-6. Motion carried unanimously.

5.4 ABTS/R_A_TOV/RRQ cleanup (2021-00343-v000) Peterson (Broadcom)

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Dave presented current FC-FS-6 text related to ABTS and RRQ and R_A_TOV…there is an 'aborting sequences using ABTS subclause', but no such text related to aborting exchanges.
Default R_A_TOV is 10 seconds, and text describes rationale behind that value.
Dave's basic question is 'when does a Recovery_Qualifer exist?' How it's defined in FC-FS and FC-LS is slightly different. But Dave feels a RQ exists if there is a range of SEQ_CNTs in existence.
Then Dave looked at text relative to when a RQ may be reinstated. Dave would like to add text that says 'there is no need to wait R_A_TOV to reinstate RQ after receiving ABTS BA_ACC or BA_RJT'….since everything is received in order. Proposed text updates will be placed in sections documented in T11/2021-00344-v00 and deletion of Annex E will also be proposed (see next agenda item).

5.5 ABTS text (2021-00344-v000) Peterson (Broadcom)

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Dave presented the current text of subclauses he feels are affected (one for aborting sequences and one for aborting exchanges) and described the kind of text changes he feels are justified. Asked the group to do some homework….how do we handle RRQs and R_A_TOV, and what is the downside (if any) of obsoleting the concept of aborting sequences.

5.6 Obsolete PREF bit/function (2021-003xx-v000) Peterson (Broadcom)

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Dave deferred this topic. Again group should see what their products do, if anything, with the preference function.

6 Unscheduled Business

7 Project Schedule

Milestone	Expected Date
Last technical input	October 2022
RFC Ballot	February 2023
T11 Letter Ballot	TBD
Forward to INCITS	TBD

8 Review of Action Items

Action Items Carried Forward:

2108-03   Editor to incorporate T11-2021-00132-v000 (BLSs – Mandatory or Optional) for inclusion in FC-FS-6.

2110-03   Editor to incorporate T11-2021-00133-v000 (Platform Name) for inclusion in FC-FS-6.

2110-05   Editor to incorporate T11-2021-00248-v001 (Name Identifier Format) for inclusion in FC-FS-6.

2110-07   Editor to incorporate T11-2021-00131-v003 (In/Out of Order Cleanup) for inclusion in FC-FS-6.

New Action Items:

2112-01   Editor to incorporate T11-2021-00305-v002 (Editorial & Technical changes recommended from FC-PI-8 group)

2112-02   Editor to incorporate T11-2021-00291-v000 (changes requested to Figures 45 and 47 recommended from FC-PI-8 group)

2112-03   Editor to incorporate T11-2021-00290-v000 (changes requested to Figures 44 and 46 recommended from FC-PI-8 group)

9 Meeting Schedule

9.1 Next Plenary Week
Request 3 hours for FC-FS-6 at the hybrid face-to-face/virtual T11 plenary week 07 February – 11 February 2021.

10 Adjournment
Roger Hathorn (IBM) moved and Ed Mazurek (Cisco) seconded to adjourn. Approved unanimously.
The regular meeting was adjourned at 03:13 PM EST on 08 December 2021.

11 Attendance

Organization	Representative	T11.3 Member Company
BROADCOM LIMITED	David Peterson	Y
BROADCOM LIMITED	James Smart	Y
CISCO SYSTEMS INC	Ed Mazurek	Y
IBM	Patty Driever	Y
IBM	Roger Hathorn	Y
MARVELL SEMICONDUCTOR	Craig W. Carlson	Y
MARVELL SEMICONDUCTOR	Raul Oteyza	Y
NETAPP INC	Frederick Knight	Y