

Minutes
T11.3 FC-FS-5 ad hoc work group regular meeting
03 October 2017 – 10:00AM – 12:00PM PDT
Coeur d'Alene, ID, USA

The FC-FS-5 ad hoc work group of the Fibre Channel Protocol (T11.3) Task Group held a regular meeting at Coeur d'Alene, Idaho on 03 October 2017, hosted by Fibre Channel Industry Association. Attendance was 18 people from 10 organizations and is tabulated at the end of this document.

Minutes were taken by Patty Driever (IBM) (pgd@us.ibm.com). Please report any corrections by email to the T11.3 reflector at T11_3@mail.T11.org.

1 Opening remarks & Introductions

Chairperson Dave Peterson (Brocade) opened the regular meeting Tuesday, 03 October 2017 at 09:32 AM PDT. He thanked our host organization, FCIA, 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 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.

1.3 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-5 ad hoc work group regular meeting 03 October 2017 has been posted as T11-2017-00289-v000.

Roger Hathorn (IBM) moved and Jason Rusch (Viavi) seconded to accept T11-2017-00289-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-5 ad hoc work group regular meeting 08 August 2017 have been posted as T11/2017-00241-v000.

Roger Hathorn (IBM) moved and Jason Rusch (Viavi) seconded to accept T11/2017-00241v000 as the minutes of the FC-FS-5 ad hoc work group meeting on 08 August 2017. Approved unanimously.

3.2 Review of Old Action Items

Action Items Carried Forward from Prior Meetings:

1706-01 Dave and Craig to work to incorporate text section and content proposed by Anil into a more formal draft. **(COMPLETE) – to be covered in 4.1 below (doc 2017-00171-v002)**

New Action Items Identified Last Meeting:

None

4 Old Business

4.1 64GFC proposed text - (2017-00171-v002) Mehta/Peterson (Brocade)

Adrian Butter has submitted comments on the text in the above document. We reviewed those comments, both editorial and technical and accepted/revised/rejected them individually. Adrian to provide Dave with two diagrams for inclusion to address a couple of the comments.

Dave will post the document with Adrian's comments as well as a revision (v003) of the document that reflects the changes agreed to today.

Dave Peterson (Brocade) made motion to approve 2017-00171-v003 containing modifications agreed to today for inclusion in the next revision of FC-FS-5. Seconded by Roger Hathorn (IBM). Motion carried unanimously. .

4.2 ABTS and RRQ discussion – (2017-00238-v000) Peterson (Brocade)

This discussion was deferred to the next meeting.

Reminder of the background of the topic: There is an open problem regarding this in NVMe, so Dave wanted to bring the discussion in here. Question is related to waiting two times RA_TOV before reusing resources, even one time after an ABTS. The belief is that this had to do with ensuring in-order delivery, but is it really needed? If ABTS you know pipe is clean (get accept or reject), it's not clear you should need to wait. Also discussion about difference between ABTS_LS and ABTS (for a sequence). We need to review this within our teams that implement this and be prepared to discuss this in more depth next time.

5.0 Scheduled Business

None

6 Unscheduled Business

None

7 Project Schedule

Milestone	Expected Date
Last technical input	October 2017
T11 Letter Ballot	February 2018
Forward to INCITS	TBD

8 Review of Action Items

Action Items Carried Forward:

None

New Action Items:

- 1710-01** Anil to propose new wording on 32GFC in section 8.5.2 of FC-FS-5 to replace statement that 'For optical links transmitter training shall not be used" with a more clarifying one since various implementations interpreted this differently. New wording must allow those that did not use it at all with those that used it in the manner as clarified for 64GFC, where Training Frame Status field bit is set to 1 indicating the used of fixed coefficients, to both be compliant.
- 1710-02** Dave to post the document with Adrian's comments
- 1710-03** Adrian Butter to supply Dave with two diagrams for inclusion in FC-FS-5 in 2017-00171-v003.

1710-04 Dave to upload 2017-00171-v003, with resolution to the comments supplied by Adrian, to the document repository

1710-05 Editor to incorporate 2017-00171-v003 into FC-FS-5

9 Meeting Schedule

9.1 Next Plenary Week

Request 2 hours for FC-FS-5 at the T11 plenary week in Santa Rosa, ID, 04 December - 08 December 2017.

10 Adjournment

Jason Rusch (Viavi) moved and Roger Hathorn (IBM) seconded to adjourn. Approved unanimously.

The regular meeting was adjourned at 11:08 AM PDT on 03 October 2017.

11 Attendance

Organization	Representative	T11.3 Member Company
BROADCOM LIMITED	David Baldwin	Y
BROADCOM LIMITED	James Smart	Y
BROCADE	David Peterson	Y
BROCADE	John Crandall	Y
BROCADE	Anil Mehta	Y
BROCADE	Steven L. Wilson	Y
CISCO SYSTEMS INC	Mike Blair	Y
CISCO SYSTEMS INC	J Metz	Y
DELL INC	D J Brown	Y
DELL INC	Alan Rajapa	Y
FUJITSU AMERICA INC	Mark Malcolm	Y
GLOBAL FOUNDRIES	Adrian Butter	Y
IBM	Patty Driever	Y
IBM	Roger Hathorn	Y
NETAPP	Frederick Knight	Y
QLOGIC CORPORATION	Craig W. Carlson	Y
QLOGIC CORPORATION	Raul Oteyza	Y
VIAVI SOLUTIONS	Jason Rusch	Y

