Minutes
T11.3 FC-LS-4 ad hoc work group regular meeting
5 June 2019 – 9:05 AM to 11:30 PT
La Jolla, CA, USA

The FC-LS-4 ad hoc work group of the Fibre Channel Protocol (T11.3) Task Group held a regular meeting at La Jolla, CA, USA on 5 June 2019, hosted by Broadcom Inc. Attendance was 12 people from 7 organizations and is tabulated at the end of this document.

Minutes were taken by Jason Rusch (Viavi Solutions) (jason.rusch@viavisolutions.com). Please report any corrections by email to the T11.3 reflector at T11_3@mail.T11.org.

1 Opening Remarks and Introductions

Chairperson Patty Driever (IBM) opened the regular meeting on Wednesday, 5 June 2019 at 9:05 AM PT. She led a round of introductions and thanked our host organization, Broadcom Inc.

1.1 Attendance and Membership

The chair explained that attendance is recorded electronically at http://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. She 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 slides 1-3 of http://www.incits.org/patent_slides.pdf. She 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 she 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/standards-information/legal-info.

2.0 Approval of Agenda

An agenda for the FC-LS-4 ad hoc work group regular meeting 5 June 2019 was posted as T11-2019-00176-v000.

Dave Peterson (Broadcom Inc) moved and J Metz (Cisco) seconded to accept T11-2019-00176-v000 as the agenda for this regular meeting. Approved by acclamation.

3.0 Review of Past Business

3.1 Review of Minutes

Minutes for the FC-LS-4 ad hoc work group regular meeting 10 April 2019 have been posted as T11-2019-000109-v000.

Howard Johnson (Broadcom Inc) moved and Mike Blair (Cisco) seconded to accept T11-2019-00109-v000 as the official minutes for the regular meeting on 10 April 2019. Approved by acclamation.

Minutes for the FC-LS-4 ad hoc work group conference call on 21 May 2019 have been posted as T11-2019-000157-v000.

Howard Johnson (Broadcom Inc) moved and Mike Blair (Cisco) seconded to accept T11-2019-00157-v000 as the official minutes for the conference call on 21 May 2019. Approved by acclamation.

3.2 Review of Old Action Items

Action items carried forward from prior meetings:
None.

New action items from last meeting:

1904-01	Roger Hathorn (IBM) to bring in a proposal to address RFC comment IBM-r007. **[COMPLETE: T11-2019-00150-v000]**
1904-02	Howard Johnson (Broadcom Inc) to bring in a proposal to address RFC comment Broadcom-043, clarifying when a descriptor should be provided. **[COMPLETE: T11-2019-00165-v000]**
1904-03	Patty Driever (IBM) to bring in proposed text for RFC Comment IBM-r013. **[COMPLETE: T11-2019-00177-v000]**
1904-04	FC-LS-4 chair to schedule an interim conference call to continue RFC Comment Resolution. **[COMPLETE]**
1904-05	FC-LS-4 chair to take the FC-LS-5 Project Proposal recommendation to T11.3. **[COMPLETE]**

4 Old Business

4.1 FC-LS-4: RFC Comment Resolution
[T11-2019-00078-001, T11-2019-00079-v001] Carlson (Marvell)

The FC-LS-4 editor continued RFC comment resolution of technical comments. Mike Blair presented T11-2019-00150-v000 as a proposed resolution to IBM-r007, Howard Johnson presented T11-2019-00165v000 as a proposed resolution to Broadcom-43, and Patty Driever presented T11-2019-00177-v000 as a proposed resolution to IBM-r013. All were agreed upon for incorporation. RFC Comment Resolution will continue in an Ad Hoc conference call on July 8th.

5 New Business

5.1 FC-LS-5: Fabric Notification – Is There Anybody Out There?
[T11-2019-00017-v001] Johnson (Broadcom Inc)

Howard Johnson continued his proposal on Fabric Notifications, providing more specific details on the new ELS and corresponding descriptors, as well as congestion signaling capabilities. One key point of discussion focused on whether the Fabric can handle the use case where the FPIN is received from a device that has not registered for Fabric Notifications. Discussion will continue at the next meeting cycle, with updated descriptions and proposed text.

5.2 FC-LS-5: Wrapped or Unwrapped?
[T11-2019-00098-v000] Driever (IBM)

Patty Driever presented a proposal to modify the Link Error Status Block to include a field which can be used to determine if the counters reported by the Read Diagnostic Parameters ELS have been reset either administratively or due to state transitions since the last polling cycle. While the group did not disagree with the proposal, the consensus was to delay a motion for inclusion one meeting cycle to provide additional time to review the implications of the solution.

6 Unscheduled Business

None.

7 Project Schedule

Milestone	Expected Date
Last technical input	August 2018
RFC Ballot	December 2018
T11 Letter Ballot	August 2019
Forward to INCITS	October 2019

8 Review of Action Items

Action items carried forward from prior meetings:
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      [COMPLETE: T11-2019-00150-v000]

1904-02	Howard Johnson (Broadcom Inc) to bring in a proposal to address RFC comment Broadcom-043, clarifying when a descriptor should be provided. **[COMPLETE: T11-2019-00165-v000]**
1904-03	Patty Driever (IBM) to bring in proposed text for RFC Comment IBM-r013. **[COMPLETE: T11-2019-00177-v000]**
1904-04	FC-LS-4 chair to schedule an interim conference call to continue RFC Comment Resolution. **[COMPLETE]**
1904-05	FC-LS-4 chair to take the FC-LS-5 Project Proposal recommendation to T11.3. **[COMPLETE]**

New action items from last meeting:

1906-01	Mike Blair (Cisco) to post T11-2019-00150-v001
1906-02	Patty Driever (IBM) to post T11-2019-00177-v001.
1906-03	FC-LS-4 Chair to schedule interim conference call.

9 Future Meeting Schedule

9.1 Interim Conference Call

Request one interim conference call (90 minutes) to continue RFC Comment Resolutions.

9.2 Next Plenary Week

Request 3 hours for FC-LS-4 at the T11 plenary week in Santa Fe, NM, August 12-15, 2019.

10 Adjournment

Alan Rajapa (Dell) moved and Mike Blair (Cisco) seconded to adjourn. Approved by acclamation.

The regular meeting was adjourned at 11:30 AM PT on 5 June 2019.

11 Attendance

Organization	Representative	Member Company
Broadcom Inc	Baldwin, David	Member
Broadcom Inc	Johnson, Howard	Member
Broadcom Inc	Peterson, David	Member
Broadcom Inc	Smart, James	Member
Broadcom Inc	Wilson, Steven	Member
Cisco Systems Inc	Blair, Mike	Member
Cisco Systems Inc	Metz, J	Member
CommScope	Gibbs, Gary	Member
Dell Inc	Rajapa, Alan	Member
IBM Corporation	Driever, Patty	Group Chair
Marvell Semiconductor Inc	Carlson, Craig	Member
Viavi Solutions Inc	Rusch, Jason	Secretary