

Minutes

T11.3 FC-GS-8 ad hoc work group regular meeting 02 October 2018 – 1:30PM – 4:00PM CDT New Orleans, LA, USA

The FC-GS-8 ad hoc work group of the Fibre Channel Protocol (T11.3) Task Group held a regular meeting at New Orleans, Louisiana on 02 October 2018, hosted by FCIA. Attendance was 14 people from 9 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 (Broadcom) opened the regular meeting Tuesday, 02 October 2018 at 10:15 AM CDT. 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-GS-8 ad hoc work group regular meeting 02 October 2018 has been posted as T11-2018-00267-v000.

Jason Rusch (Viavi) moved and Mike Blair (Cisco) seconded to accept T11-2018-00267-v000 as the agenda for this regular meeting. Approved unanimously.

3 Review of Past Business

3.1 Review of Minutes

Minutes for the FC-GS-8 ad hoc work group regular meeting 14 August 2018 have been posted as T11/2018-00228-v000.

Jason Rusch (Viavi) moved and Mike Blair (Cisco) seconded to accept T11/2018-00228-v000 as the minutes of the FC-GS-8 ad hoc work group meeting on 14 August 2018. Approved unanimously.

3.2 Review of Old Action Items

Action Items Carried Forward From Prior Meetings:

- 2018-04-01 Editor to incorporate 2018-00100-v001 into FC-GS-8 (**COMPLETE**)
- 2018-04-02 Editor to incorporate 2018-00104-v001 into FC-GS-8 (**COMPLETE**)
- 2018-04-03 Editor to incorporate 2018-00102-v001 into FC-GS-8 (**COMPLETE**)
- 2018-06-02 Editor to incorporate 2018-00102-v004 into FC-GS-8 (**COMPLETE**)
- 2018-06-03 Editor to incorporate 2018-00166-v000 into FC-GS-8 (**COMPLETE**)

New Action Items Identified Last Meeting:

- 2018-08-01 Editor to incorporate slides 4-5 from 2018-00121-v002 into FC-GS-8 (**COMPLETE**)

Jason posted a new version of FC-GS-8 (2018-00107-v001) incorporating all of the above.

4 Old Business

4.1 EFCS, Let's Get on the Same Page (2018-00225-v001) Johnson (Broadcom)

Howard did a preamble to the text Jason will propose in the next presentation, reminding of us what is being addressed and how we had discussed addressing it. Approach is to define a series of pages, and in Page 0, what Howard is calling the "legacy page", to take the bottom 7 bits of the Port Speed Flags, leaving the bit 0 definition as is, defining an administratively configured bit, and using bits 3-4 to reflect the page number (and beyond Page 0 there can be defined a few more pages). Howard also reviewed Page 1 contents. If an application issues GPSC, they will receive the legacy data. If it issues GPSCE, since both Page 1 and GPSCE are both FC-GS-8 constructs, the server will send back the relevant page, and by definition the issuer should be able to decode Page 0 or 1. In the future as pages 2 and 3 are defined, the issuer MAY not know the content of these pages, but should not be surprised that they exist. We also agreed by convention that the last 3 speeds of the prior page will be repeated on the subsequent page to enable a smoother transition.

4.2 Port Speed Pages Proposed Text (2018-00269-v000) – Rusch(Viavi)

Jason reviewed the actual text and table changes to correspond to the prior agenda item. The extended command returns a 32-bit object that is two 16 bit fields. There was much discussion about how confusing it is to understand with the tables defined as is, so Fred Knight took an ***action item*** to propose an alternative format and content for some of the tables in question, along with the corresponding text description of their contents. Chairman Dave Peterson indicated he would like to have an interim call to review Fred's proposal between now and the December meeting.

For the record, there was some discussion along the way of creating a whole new command (instead of GPSCE) that takes a new object that the FC-GS-8 version of RPSC returns. If we work within the constraints of the current attribute we must stay within the 32-bit limitation and still need the concept of pages defined. If we extend the object size beyond 32 bits, we need to also define a new attribute. At the end of the day....this idea was discarded and we worked to improve the clarity of the text as proposed.

5.0 Scheduled Business

6 Unscheduled Business

6.1 How Low Can You Go? (No document) Johnson (Broadcom)

Howard introduce a new attribute in FDMI for queue depth. Was originally part of his earlier 'A Seat at the Table' presentation. Howard's take was that this could be for SCSI (LUN) or NVMe queue depth, although the idea of utilizing this with SCSI LUNs met some resistance. More discussion on this will ensure next meeting cycle.

7 Project Schedule

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

8 Review of Action Items

Action Items Carried Forward:

- 2018-04-01** Editor to incorporate 2018-00100-v001 into FC-GS-8
- 2018-04-02** Editor to incorporate 2018-00104-v001 into FC-GS-8
- 2018-04-03** Editor to incorporate 2018-00102-v001 into FC-GS-8
- 2018-06-02** Editor to incorporate 2018-00102-v004 into FC-GS-8
- 2018-06-03** Editor to incorporate 2018-00166-v000 into FC-GS-8
- 2018-08-01** Editor to incorporate slides 4-5 from 2018-00121-v002 into FC-GS8

New Action Items:

- 2018-10-01** Fred to provide input to resolve editorial concerns in 2018-00269-v000
- 2018-10-02** Chair to set up interim con call to discuss proposed resolution for 2018-10-01 above.

9 Meeting Schedule

9.1 Next Plenary Week

Request 3 hours for FC-GS-8 at the T11 plenary week in Raleigh, NC, 03 December - 07 December 2018.

10 Adjournment

Howard Johnson (Broadcom) moved and Mike Blair (Cisco) seconded to adjourn. Approved unanimously.

The regular meeting was adjourned at 12:09 PM CDT on 02 October 2018.

11 Attendance

Organization	Representative	T11.3 Member Company
BROADCOM LIMITED	David Baldwin	Y
BROADCOM LIMITED	David Peterson	Y
BROADCOM LIMITED	Howard Johnson	Y
BROADCOM LIMITED	Steven Wilson	Y
CISCO SYSTEMS INC	Mike Blair	Y
CISCO SYSTEMS INC	J Metz	Y
DELL INC	Alan Rajapa	Y
FUJITSU AMERICA INC	Mark Malcolm	Y
HEWLETT PACKARD ENTERPRISE	Krishna Babu Putagunta	Y
IBM	Patty Driever	Y
IBM	Roger Hathorn	Y
NETAPP INC	Frederick Knight	Y
MARVELL SEMICONDUCTOR	Raul Oteyza	Y
VIAVI SOLUTIONS	Jason Rusch	Y