

Minutes
T11.3 FC-GS-8 ad hoc work group regular meeting
14 August 2018 – 1:30PM – 4:00PM EDT
Louisville, KY, USA

The FC-GS-8 ad hoc work group of the Fibre Channel Protocol (T11.3) Task Group held a regular meeting at Louisville, Kentucky on 14 August 2018, hosted by Amphenol. Attendance was 12 people from 8 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, 14 August 2018 at 01:38 PM EDT. He thanked our host organization, Amphenol, 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 05 June 2018 has been posted as T11-2018-00217-v000.

Roger Hathorn (IBM) moved and Barry Maskas (HPE) seconded to accept T11-2018-00217-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 05 June 2018 have been posted as T11/2018-00187-v000.

Roger Hathorn (IBM) moved and Barry Maskas (HPE) seconded to accept T11/2018-00187-v000 as the minutes of the FC-GS-8 ad hoc work group meeting on 05 June 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 (**CARRY**)
- 2018-04-02 Editor to incorporate 2018-00104-v001 into FC-GS-8 (**CARRY**)
- 2018-04-03 Editor to incorporate 2018-00102-v001 into FC-GS-8 (**CARRY**)
- 2018-04-06 Address port operating speed in Enhanced Fabric Configuration Server (Howard Johnson and Jason Rusch) (**COMPLETE – see 4.4**)

New Action Items Identified Last Meeting:

- 2018-06-01 Chair to send meeting notice and request for presentations for subsequent meetings (**COMPLETE**)
- 2018-06-02 Editor to incorporate 2018-00102-v004 into FC-GS-8 (**CARRY**)
- 2018-06-03 Editor to incorporate 2018-00166-v000 into FC-GS-8 (**CARRY**)

4 Old Business

4.1 Fabric Name and FLOGI LS_ACC (2018-00121-v002) Peterson (Broadcom)

Dave reviewed the current situation driving this discussion and proposal. We had agreed on a prior solution (see the presentation), which does drive a change in FC-GS-8 in 6.2.3.2.5. The group suggested a modification to Dave's proposed text. Changes are also required in 6.8.3.3.2.2 and 6.8.3.4.2.5. The modified text change above applies to these two entities also.

Dave pre-reviewed the changes required in FC-LS-4. For the Fabric_Name field in RLIR, it was suggested to change that field to be called Fabric_Switch_Name, and leave the statement of how it is obtained by N_Ports alone (i.e. the value is obtained in the FLOGI LS_ACC Payload). This will allow all current implementations that use it this way to remain compliant. But the definition needs to now reflect that it is either the Fabric Name or the name of the Locally Attached switch. We tabled looking at the other changes required in FC-LS-4 due to the amount of discussion.

Dave moved to incorporate slides 4-5 from 2018-00121-v002 as modified into FC-GS-8. Seconded by Roger Hathorn (IBM). Motion passed unanimously.

4.2 FC Priority Enhancements (2018-00163-v001) Blair (Cisco)

Mike reviewed the rationale behind this proposal. There was a lot of discussion regarding the concern that a sudden introduction of an existing priority range being defined to be 'strict priority' (when it wasn't before) could have unintended consequences on fabric behavior. One suggestion was that current priority ranges be exclusive of those with arbitration types. Or perhaps only for Strict Priority---require that this be the top priority range(s). Mike to take this back and

4.3 What's in a Name? (2018-00226-v000) Johnson (Broadcom)

Howard went over a new idea to have additional commands that one can use to register/query entity attributes (such as entity name). This would be an expansion of the work done with Application Identifier. Howard was soliciting feedback, and it generally seemed acceptable (not too complex, and potentially valuable).

4.4 EFCS, Let's Get on the Same Page (2018-00255-v000) Johnson (Broadcom)

Again, this is due to the fact that we ran out of port speed bits in the existing GPSC command. We defined a new command, GPSCE, with an extended object to do this. With the EFCS we have a solution but will still likely run out of bits. Howard proposed we reclaim the bottom bits (0-7) of the extended field of the Port Speed Capabilities and Port Operating Speed objects (in FCS) and attributes (in EFCS), and use them to allow for definition of new pages for continued growth. Use bits 0-3 to reflect the value used to represent Speed Control (adding in Administratively configured and Phy Type values/fields) and bits 4-7 to reflect the value of the page used to

represent additional Speed Pages (page 0 = legacy). Subsequent pages should have the last 3 values of the previous page included in them. Mark Malcom suggested we only consume 2 bits (versus 4) for this purpose. Also suggested that we report more than 3 values backward. We also discussed the issue with how the entity querying will need to Should the extended query be changed to allow the code page to be specified as input on the query? Or maybe require the switch to return the lowest possible code page to answer the query?

5.0 Scheduled Business

6 Unscheduled Business

7 Project Schedule

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

New Action Items:

- 2018-08-01 Editor to incorporate slides 4-5 from 2018-00121-v002 into FC-GS8

9 Meeting Schedule

9.1 Next Plenary Week

Request 3 hours for FC-GS-8 at the T11 plenary week in New Orleans, LA, 01 October - 05 October 2018.

10 Adjournment

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

The regular meeting was adjourned at 04:04 PM EDT on 14 August 2018.

11 Attendance

Organization	Representative	T11.3 Member Company
BROADCOM LIMITED	David Baldwin	Y
BROADCOM/LIMITED	David Peterson	Y
BROADCOM/LIMITED	Howard Johnson	Y
CISCO SYSTEMS INC	Mike Blair	Y
CISCO SYSTEMS INC	J Metz	Y
FUJITSU AMERICA INC	Mark Malcolm	Y
HEWLETT PACKARD ENTERPRISE	Barry Maskas	Y
IBM	Patty Driever	Y
IBM	Roger Hathorn	Y
NETAPP INC	Frederick Knight	Y
QLOGIC CORPORATION	Raul Oteyza	Y
VIAVI SOLUTIONS	Jason Rusch	Y