# Minutes
# T11.3 FC-GS-8 ad hoc work group regular meeting
# 04 December 2018 – 1:30PM – 4:00PM EST
# Raleigh, NC, USA

The FC-GS-8 ad hoc work group of the Fibre Channel Protocol (T11.3) Task Group held a regular meeting at Raleigh, NC on 04 December 2018, hosted by SNIA-SFF. Attendance was 11 people from 6 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, 04 December 2018 at 10:39 AM EST. He thanked our host organization, SNIA-SFF, 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 T11-2018-00315-v000.

Howard Johnson (Broadcom) moved and Mike Blair (Cisco) seconded to accept T11-2018-00315-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 02 October 2018 have been posted as T11/2018-00272-v000.
Minutes for the FC-FS-8 ad hoc interim conference call meeting 27 November 2018 have been posted as T11/2018-00331-v000.

Howard Johnson (Broadcom) moved and Mike Blair (Cisco) seconded to accept T11/2018-00272-v000 as the minutes of the FC-GS-8 ad hoc work group meeting on 02 October 2018 and T11/2018-00331-v000 as the minutes of the FC-GS-8 ad hoc interim conference call on 27 November 2018. Approved unanimously.

## 3.2 Review of Old Action Items

**Action Items Carried Forward From Prior Meetings:**

None

**New Action Items Identified Last Meeting:**

**2018-10-01**     Fred to provide input to resolve editorial concerns in 2018-00269-v000 **(COMPLETE)**

**2018-10-02**     Chair to set up interim con call to discuss proposed resolution for 2018-10-01 above.  **(COMPLETE)**

# 4 Old Business

## 4.1 What's In a Name – The Entity (2018-00226-v001, 2018-00329-v000) Johnson (Broadcom)

Howard changed his mind somewhat from a prior proposal.  His new proposal is a simplified registration that creates a new Entity Attribute Allocation object that includes the Application Identifier Allocation object plus a list of Entity Attributes.

Howard moved to incorporate the changes shown in T11/2018-00329-v000 into FC-GS-8.  Motion was seconded by Roger Hathorn (IBM).  Motion passed unanimously.


## 4.2 How Low Can You Go? (2018-00282-v001) Johnson (Broadcom)


Howard did a follow-up on the proposal to add queue depths to FDMI.  For now Howard is choosing to focus only on the SCSI attributes....NVMe can come later.  He proposed a SCSI Target Queue Depth and SCSI LUN Queue Depth as new FDMI Port Attributes.

Some changes were suggested (including having separate attributes for what Targets vs Initiators report).  Howard will take this back and revise things for February.


## 4.3 Port Speed Capabilities (2018-00313-v001) – Rusch (Viavi)

Jason reviewed the format/approach that was reviewed in the interim conference call and associated text.
Some minor changes were suggested, but a concern was raised that in the current spec values such as 64GFC could be returned in either page 0 or page 1.  So implementers must have to write code for both cases....why not limit the extended command to only return the Page 1 format?
After lunchtime ruminations and napkin discussions Jason came back with a suggestion on how to resolve this.  If the extended command is issued, page 0 is never returned.  Page 0 will look like the legacy did, with only the first 15 bits of the Port Speed Capabilities object used while for the extended version of the command all 32 bits will be used (call it a separate format of the object).  An alternate approach discussed was to leave the Port Speed Capabilities object as it was (but adding the 'incomplete' bit definition), and define a new Extended Port Speed Capabilities object for use moving forward (will list all FC speeds on page 1, 2, etc.).  Or if we define a new object we could also extend the size from 32 bits to 64 bits.

Oh, and it was also noted that the FDMI section is also broke in regard to port speeds at the higher speeds (although FDMI does have a few more bits left to be defined).  So this will be a work item to be brought in at a later time.

Ultimately we agreed to keep the single 32 bit object with two formats.  We then spent time marking up the document to match this approach.  WAIT....so 'ultimately' wasn't the final answer.  We went in circles (spirals? death spirals?) and now are on the path that we need separate objects that are returned for the base command and the extended command (Get Port Speed Capabilities).  We will remove the Reserved 2 bytes from the Port Speed Capabilities Format (Table 126) (and similarly for Operating Speed), and define a new Extended Port Speed Capabilities Object.

We agreed to schedule a conference call in January to follow-up on this (Tuesday, January 22nd at 2:00pm EST).

## 5.0 Scheduled Business

## 6 Unscheduled Business
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## 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:**

**None**

**New Action Items:**

**2018-12-01**     Editor to incorporate 2018-00329-v000.

**2018-12-02**     Chair to schedule interim conference call for Tuesday, January 22nd at 2:00pm EST.

## 9 Meeting Schedule

### 9.1 Next Plenary Week
Request 3 hours for FC-GS-8 at the T11 plenary week in Fort Worth, TX, 04 February - 08 February 2018.

# 10 Adjournment

Howard Johnson (Broadcom) moved and Mike Blair (Cisco) seconded to adjourn. Approved unanimously.
The regular meeting was adjourned at 03:45 PM EST on 04 December 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 |
| HEWLETT PACKARD ENTERPRISE | Barry Maskas | Y |
| IBM | Patty Driever | Y |
| IBM | Roger Hathorn | Y |
| VIAVI SOLUTIONS | Jason Rusch | Y |