

Approved Minutes
T11.3 FC-LS-3 ad hoc work group regular meeting
1 April 2014 – 1:30PM to 3:30PM CDT
Scottsdale, Arizona, USA

The FC-LS-3 ad hoc work group of the Fibre Channel Protocol (T11.3) Task Group held a regular meeting at Scottsdale, Arizona, USA on 1 April 2014, hosted by FCIA and Chris Lyon. Attendance was 20 people from 15 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

1.1 Introductions

Chairperson Lou Ricci (EMC) opened the regular meeting on Tuesday 1 April 2014 at 1:35 PM PDT.

2 Meeting Policy

2.1 Attendance and Membership

The chair explained that attendance is recorded electronically at www.t11.org/att, 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.

2.2 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.

2.3 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>

3.0 Approval of Agenda

An agenda for the FC-LS-3 ad hoc work group regular meeting 1 April 2014 was posted as T11/14-109v0.

One agenda item was subsequently added. Roger Hathorn (IBM) requested time to discuss 14-131v0 Class 3 Ping.

Gautam Shiroom (Emulex) moved and Fred Knight (NetApp) seconded to accept T11/14-038v0 as amended as the agenda for this regular meeting. Approved by acclamation.

4.0 Past Business

4.1 Review of Minutes

Gautam Shiroom (Emulex) moved and Fred Knight (NetApp) seconded to accept T11/14-049v0 as amended as the official minutes for the regular meeting on 4 February 2014. Approved by acclamation. .

4.2 Review of Old Action Items

1312-003 John Crandall to review 13-438v1 with T11.2 to review list of optics types
(CARRY)

5 Old Business

None

6 New Business

6.1 RDP for 128Gig (14-116v0) Johnson (Brocade)

Howard proposed a new descriptor for use in the RDP ELS for 128G QFSP. Some values, such as voltage and temp, are for the whole QFSP, while other (such as Tx Bias, Tx Power, Rx Power, & Flags) are on a per-lane basis.

Should there be a count of lanes? Should there be separate validity flags for the component (i.e. temperature and voltage)? How do we distinguish the lanes in the descriptor while operating in parallel mode? In break-out operation, can the SFP descriptor be used?

Change SFP diagnostic descriptor to a Module Descriptor (number of lanes, temperature, voltage) + n Lane Descriptors. It was suggested that the number of lanes reported should be what you support (i.e. report 4 even if operating in breakout mode).

Question to be raised at joint meeting: Should FEC errors (corrected errors) be reported?

Does the LESB have fields that need to be replicated per lane? What should the descriptors look like in general? (the LESB question should possibly be discussed in FC-FS also).

New Action Item: Howard to bring 14-116v0 to joint T11.2/T11.3 meeting for discussion/input

6.2 Fabric Priority – How High Can You Get? (14-117v0) Johnson (Brocade)

Priority is 7 bit field in CS_CTL, with ascending priority from zero (which is no priority). Flexibility exists that allows each implementer to choose different values it supports. Howard suggested 3 possible ways to standardize the way for an N_Port to determine the support characterization for a particular switch implementation

- 1) State in FC-FS-4 (modify clause 12.5.2) that you start at 1, and specify what max priority value you support
- 2) Create new ELS Get F_Port priorities to provide the ability for an N_Port to solicit info on the supported range
- 3) Create new CT command Get Fabric Attributes to similarly solicit the switch's priority characterization.

Suggestion was that either option 2 or 3 (or both) is preferable. The result of the command will also have to address the issue where multiple switches in the same fabric have different implementations.

New Action Item: Howard and John Crandall to bring in a detailed proposal for new ELS/GS commands in support of this proposal.

6.3 Class 3 Ping (14-131v0) Hathorn (IBM)

Deferred to next meeting as we ran out of time in this meeting.

7 Project Schedule

Milestone	Expected Date
Last technical input	April, 2014
T11 Letter Ballot	TBD
Forward to INCITS	TBD

8 Review of Action Items

1312-03 John Crandall to review 13-438v1 with T11.2 (CARRY)

New action items:

1404-01 Howard to review 14-116v0 with the Joint T11.2/T11.2 meeting to get feedback on reporting of FEC errors

1404-02 Howard and John Crandall to bring in a detailed proposal for new ELS/GS commands in support of this proposal (14-117v0)

9 Meeting Schedule

Request 2.5 hours at the T11 plenary week in Philadelphia, PA, 2 June -5 June 2014.

10 Adjournment

Howard Johnson (Brocade) moved and Roger Hathorn (IBM) seconded to adjourn. Approved by acclamation.

The regular meeting was adjourned at 3:02 PM PDT on 1 April 2014.

Organization	Representative
BROCADE	David Peterson
BROCADE	Howard Johnson
CISCO SYSTEMS	Landon Noll
CISCO SYSTEMS, INC.	Claudio DeSanti
DELL	Joseph White
EMC	Louis Ricci
EMULEX CORPORATION	Gautam Shiroor
FUJITSU AMERICA, INC.	Sandy Wilson
FUTUREWEI TECHNOLOGIES INC.	WEI SONG
FutureWei Technologies.	Hao Chen
HEWLETT-PACKARD	Siamack Ayandeh
HEWLETT-PACKARD COMPANY	Nadaraha Navaruparajah
IBM	Patty Driever
IBM	Roger Hathorn
INTEL CORP	Mark Wunderlich
JDSU	Jason Rusch
LSI CORP.	John Lohmeyer
NETAPP	Frederick Knight
ORACLE	Roger Dickerson
QLOGIC CORP.	Craig W. Carlson