

Draft Minutes

T11.3 FC-BB-6 ad hoc work group regular meeting

5 August 2009 - 9 AM to 11 AM MDT

Salt Lake City UT

The FC-BB-6 ad hoc work group of the Fibre Channel Protocol (T11.3) Task Group held a regular meeting at Salt Lake City UT on 5 August 2009, hosted by NetApp and Fred Knight. Attendance was 30 people from 21 organizations and is tabulated at the end of this document.

Minutes were taken by Bob Nixon (Emulex) (bob.nixon@emulex.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 Claudio DeSanti (Cisco) opened the regular meeting Wednesday, 5 August 2009 at 9:10 AM MDT. He thanked our hosts, NetApp and Fred Knight, and led a round of introductions.

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.

Representatives of UNH, Hufferd Enterprises, and Huawei Symantec advised that their organizations were not members of T11. They were advised that by remaining in this meeting, they submit themselves and their organizations to INCITS policy for intellectual property, antitrust, and guest membership policy.

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 Administrivia

3.1 Approval of Agenda

An agenda for the FC-BB-6 ad hoc work group regular meeting 5 August 2009 has been posted as T11/09-428v0.

Bob Nixon (Emulex) moved and Erik Smith (EMC) seconded to accept T11/09-428v0 as the agenda for this regular meeting. Approved unanimously.

3.2 Review of Minutes

There are no prior meetings, so no minutes of prior meetings to review.

4 Review of Old Action Items

No actions were carried into this work group from prior work of TC T11.

5 Old Business

No old business was presented.

6 Scheduled Business

6.1 FIP interop - Summary of issues found during testing T11/09-417v0 Smith (EMC)

The presenter summarized several interoperability issues that had been encountered in his organization's testing program, and proposed resolutions to them.

In discussion, Silvano Gai (Cisco) observed that the ability for an administrator to choose only one of two address allocation methods (FPMA and SPMA) presented a risk to interoperability. He recommended that SPMA be obsoleted. Steve Wilson (Brocade) agreed.

A straw poll was taken: *Is anyone opposed to removing SPMA? No opposition was stated to removing SPMA.*

6.2 End-to-End FCoE

T11/09-425v0

Gai (Cisco)

The presentation offered background on the omission of direct VN_Port to VN_Port communication, and then introduced an architectural framework for enabling it. A key concept was decomposing the FCF functionality into control and routing functions.

Landon Noll (Cisco) reminded the group that the architectural decomposition is likely to introduce new security threats, and these are not likely to be covered by the threat model presumed in FC-BB-5.

Joe Pelissier (Cisco) noted that the likelihood of internal ethernet bridges inside servers opens additional issues for this model, since it can not be presumed all ENodes are directly connected to an FC-aware entity. He advised that there is early work in IEEE 802.1 DCB that focuses on the same problem.

6.3 FCoE Point to Point

T11/09-450v0

Hathorn (IBM)

This presentation distinguishes “point-to-point” FCoE as a pair of ENodes with only an ethernet physical link connecting them. It reviews the FC-LS approach to point-to-point logins, and then extends the approach to FIP discovery.

Significant objection was raised to the presumption that lack of FIP advertisements indicated a topology that could not have an FCF. This approach was described as flawed in the cases of nonsynchronous startup and of temporary failure of a path to an FCF.

Ethernet experts present advised there was not yet any reliable way to discover a true point to point connection in ethernet. The best current method is LLDP, though there are known implementations that are flawed for this purpose. Another partial solution was using a different multicast address for point-to-point discovery. Then bridges could selectively permit or entirely exclude point-to-point discovery.

The discussion was briefly extended to multiple point-to-point connections, and multipoint fabrics, using single and multiple bridges. These raised even more issues, and the discussion returned to the presenter's goal of a physical link.

7 Unscheduled Business

No unscheduled business was offered.

8 Review of Action Items

There are no action items.

9 Meeting Schedule

Request 4 hours at the T11 plenary week hosted by Emulex in Sacramento CA, 5-9 October 2009.

10 Adjournment

Landon Noll (Cisco) moved and Roger Hathorn (IBM) seconded to adjourn. Approved unanimously.

The regular meeting was adjourned at 11:40 AM MDT on 5 August 2009.

11 Attendance

| Organization | Representative |
|--|-------------------|
| BROADCOM | Niranjan Vaidya |
| BROADCOM | Pat Thaler |
| BROADCOM | Uri Elzur |
| BROCADE | David Peterson |
| BROCADE | Steven L. Wilson |
| CIENA CORPORATION | Martin Hunt |
| CISCO | Joe Pelissier |
| CISCO SYSTEMS | Landon Noll |
| CISCO SYSTEMS | Silvano Gai |
| CISCO SYSTEMS, INC. | Claudio DeSanti |
| DELL | Gaurav Chawla |
| EMC | David Black |
| EMC | Erik Smith |
| EMULEX | Bob Nixon |
| EMULEX | William R. Martin |
| ENDL TEXAS | Ralph Weber |
| HUAWEI SYMANTEC | Michael Ko |
| HUFFERD ENTERPRISES | John Hufferd |
| IBM | Roger Hathorn |
| LSI CORP. | John Lohmeyer |
| MELLANOX TECHNOLOGIES | Diego Crupnicoff |
| MICROSOFT CORPORATION | Albert Chen |
| NETAPP | Frederick Knight |
| QLOGIC CORP. | Craig W. Carlson |
| SOLUTION TECHNOLOGY | Robert Kembel |
| SUN MICROSYSTEMS | Roger Dickerson |
| SYMANTEC | Roger Cummings |
| TRUE FOCUS, INC | Horst Truestedt |
| UNIVERSITY OF NEW HAMPSHIRE INTEROPERABILITY LAB | Dustin Schoenbrun |
| UNIVERSITY OF NEW HAMPSHIRE INTEROPERABILITY LAB | Mikkel Hagen |