Draft Minutes
T11.3 FC-BB-6 ad hoc work group regular meeting
9 December 2009 - 9:00 AM to 3:30 PM CST
New Orleans LA

The FC-BB-6 ad hoc work group of the Fibre Channel Protocol (T11.3) Task Group held a regular meeting at New Orleans LA on 9 December 2009, hosted by FCIA and Chris Lyon. Attendance was 26 people from 17 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, 9 December 2009 at 9:08 AM CST. He thanked our hosts, FCIA and Chris Lyon, 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.

Those responding are included in the attendance record. 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 9 December 2009 has been posted as T11/09-667v0.

Landon Noll (Cisco) moved and Roger Hathorn (IBM) seconded to accept T11/09-667v0 as the agenda for this regular meeting. Approved unanimously.

3.2 Review of Minutes

Minutes for the FC-BB-6 ad hoc work group regular meeting 7 October 2009 have been posted as T11/09-571v1.

Silvano Gai (Cisco) moved and Bob Nixon (Emulex) seconded to accept T11/09-571v1 as the minutes of the FC-BB-6 ad hoc work group meeting on 7 October 2009. Approved unanimously.

3.3 Review of Old Action Items

There are no open action items.

4 Old Business

No old business was presented.

5 Scheduled Business

5.1 Obsoleting SPMAs T11/09-514v1 DeSanti (Cisco)

This document is unchanged from its prior presentation two months ago, when it was approved in principle. Its adoption was deferred to allow broader consideration. It is now brought back for final vote.

Silvano Gai (Cisco) moved and Bob Nixon (Emulex) seconded to incorporate T11/09-514v1 into FC-BB-6. The chair deferred consideration of the motion until after completion of presentation T11/09-638v0

5.2 SPMA - Do we really want to obsolete it (now)? T11/09-638v0 Peterson (Brocade)

The presenter reminded the meeting of advantages that have been proposed for use of Server Provided MAC Addresses during development of FC-BB-5, and questioned whether it was premature to discard it.

Others emphasized the cost of developing and testing two distinct address assignment methods. They reminded the meeting that the reason for early obsoletion was to advise the community against making the investment in supporting two methods. They also pointed out that their implementers already had made investment in FPMA-only implementations, and there would be additional cost in redesigning those implementations.

The chair called for resumption of consideration of the motion to incorporate T11/09-514v1 into FC-BB-6.The motion passed 8 Favoring, 1 Opposing, 5 Abstaining.

ACTION FC-BB-6 editor to incorporate T11/09-514v1 into FC-BB-6.

5.3 Filling the Virtualization Swamp T11/09-412v1 Crandall (Brocade)

John described the issues that the new virtualization architecture in general, and FCoE in particular, lacks representation in T11's management related standards, such as FC-GS-x and SM-HBA-x. He emphasized a particular need for a correlatable identity relating FCoE entities (e.g., VN_Ports) with their underlying Ethernet entities (e.g., MACs).

5.4 FCoE Point to Point (VN_Port to VN_Port) T11/09-450v2 Hathorn (IBM)

The meaning of "point-to-point": was questioned: It was asked if this was strictly physical (single-cable) point-to-point, or was intended to support multiple concurrent point-to-point connections over a switched Ethernet fabric ("virtual point-to-point").

The authors preferred to move this feature forward rapidly, restricting it to the physical interpretation, but were open to extending to virtual point-to-point later.

The presenter was advised not to involve multiiple VLANs and FIP VLAN discovery in point-to-point discovery, but to start with FIP FCF discovery. Point-to-point discovery could still begin parallel with VLAN discovery if desired.

The group expressed a strong preference to pursue physical point-to-point as a special case of virtual point-to-point, rather than as an earlier phase.

5.5 Adapter Based Shortcuts T11/09-516v1 Hufferd (Hufferd Enterprises)

This is an update to a prior proposal that attempts to resolve concerns expressed during the earlier presentation. It poses an approach to FCF-authorized direct routing from one FCoE end device to another, relying on enhancements to both the FCF and the end devices.

- ACLs are adjusted only in response to mesages from an FCF.
- End device "willingness" is determined by a new end-to-end control protocol
  - — Options were a new ELS or a new Ethertype.
  - — There was active disagreement whether a new Ethertype was a "better" approach.

5.6 (Direct Mode) Adapter Based Shortcuts T11/09-654v0 Hufferd (Hufferd Enterprises)

This is a proposal for direct routing from one FCoE end device to another in absense of an FCF. It is intended to operate in the presense of one or more Ethernet bridges, and may lack capabilities that a Fabric would provide.

There was wide acceptance that the general capability was valuable. There was also wide acceptance that there were many approaches to resolving the perceived issues, and therefore a probablility of at least some useful approaches. That of course did not stop prolonged debate over the merits of specific approaches.

5.7 VN_Port to VN_Port Virtual Links T11/09-637v0 Peterson (Brocade)

This presentation returns to the FCF-controlled direct routing capability, offering other approaches to several of the issues.

5.8 FC-BB-6 Developments T11/09-664v0 DeSanti (Cisco)

The presentation accepts the goal to support both direct connectivity (FCoE operation in complete absense of an FCF), and distributed FCF (FCoE operation that may route traffic among multiple end devices directly between FCF-controlled routing proxies that are near each end device, and therefore may take advantage of optimal Ethernet routing). It claims they can be designed to be interoperable.

5.9 FPMAs for VN_Port to VN_Port Virtual Links T11/09-663v0 DeSanti (Cisco)

This presentation returns to operation without an FCF, offering a reasonably completely worked out solution to many of the issues, including assuring address uniqueness and allowing interoperability with FCFs.

5.10 Distributed FCF functionality T11/09-648v0 Gai (Cisco)

This presentation continues pursuit of an architecture of distributed FCF functionality, focusing on the detection and application of shortcuts for traffic between the end devices.

5.11 Protecting FPP / FC-CMP Connections T11/09-673v0 Noll (Cisco)

This presentation was deferred for lack of time.

6 Unscheduled Business

7 Review of Action Items

091209-1 FC-BB-6 editor to incorporate T11/09-514v1 into FC-BB-6.

8 Meeting Schedule

Request as many hours as possible at the T11 plenary week hosted by FCIA in San Antonio TX, 1-5 February 2010.

9 Adjournment

Horst Truestedt (TrueFocus) moved and Lou Ricci (IBM) seconded to adjourn. Approved unanimously.

The regular meeting was adjourned at 3:20 PM CST on 9 December 2009.

10 Status of Open Proposals

Document Title	Number	Disposition	Author
Obsoleting SPMAs	T11/09-514	Close. Version accepted was T11/09-514v1.	DeSanti (Cisco)
Adapter Based Shortcuts text	T11/09-515	Close unless reopened by request.	Hufferd (Hufferd Ent.)
Adapter Based Shortcuts presentation	T11/09-516	Carry for further consideration. Version presented was T11/09-516v1	Hufferd (Hufferd Ent.)
Proxy Based Shortcuts text	T11/09-517	Carry for further consideration. Version presented was T11/09-517v0	Hufferd (Hufferd Ent.)
Proxy Based Shortcuts presentation	T11/09-518	Carry for further consideration. Version presented was T11/09-518v0	Hufferd (Hufferd Ent.)
Filling the Virtualization Swamp	T11/09-412	Carry for further consideration. Version presented was T11/09-412v1	Crandall (Brocade)
FCoE Point to Point	T11/09-450	Carry for further consideration. Version presented was T11/09-450v2	Hathorn (IBM)
VN_Port to VN_Port Virtual Links	T11/09-637	Carry. Last version presented was T11/09-637v0.	Peterson (Brocade)
Distributed FCF functionality	T11/09-648	Carry. Last version presented was T11/09-648v0	Gai (Cisco)
(Direct Mode) Adapter Based Shortcuts	T11/09-654	Carry. Last version presented was T11/09-654v0	Hufferd (Hufferd Ent.)
FPMAs for VN_Port to VN_Port Virtual Links	T11/09-664	Carry. Last version presented was T11/09-664v0.	DeSanti (Cisco)
FC-BB-6 Developments	T11/09-664	Close. Tutuorial intent was fulfilled. Last version presented was T11/09-664v0.	DeSanti (Cisco)
Protecting FPP / FC-CMP Connections	T11/09-673	Deferred. Version available was T11/09-673v0.	Noll (Cisco)

11 Attendance

Organization	Representative
BLADE NETWORK TECHNOLOGIES	Chetan Yaliwal
BROADCOM	Niranjan Vaidya
BROADCOM	Pat Thaler
BROADCOM	Uri Elzur
BROCADE	David Peterson
BROCADE	John Crandall
BROCADE	Steven L. Wilson
CISCO SYSTEMS	Landon Noll
CISCO SYSTEMS	Silvano Gai
CISCO SYSTEMS, INC.	Claudio DeSanti
DELL	Gaurav Chawla
EMC	David Black
EMULEX	Bob Nixon
ENDL TEXAS	Ralph Weber
IBM	Louis Ricci
IBM	Roger Hathorn
JDSU	Jason Rusch
LSI CORP.	Curtis Ridgeway
LSI CORP.	John Lohmeyer
NETAPP	Frederick Knight
QLOGIC CORP	Alan Spalding
QLOGIC CORP.	Craig W. Carlson
SUN MICROSYSTEMS	Michael Roy
TRUE FOCUS, INC	Horst Truestedt
UNIVERSITY OF NEW HAMPSHIRE INTEROPERABILITY LAB	Mikkel Hagen
VMWARE	Lawrence Lamers