

Draft Minutes

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

7 October 2009 - 9:00 AM to 12:30 PM PDT

Sacramento CA

The FC-BB-6 ad hoc work group of the Fibre Channel Protocol (T11.3) Task Group held a regular meeting at Sacramento CA on 7 October 2009, hosted by Emulex and Bill Martin. Attendance was 36 people from 22 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 and introductions

Chairperson Claudio DeSanti (Cisco) opened the regular meeting Wednesday, 7 October 2009 at 9:06 AM PDT. He thanked our hosts, Emulex and Bill Martin, 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 7 October 2009 has been posted as T11/09-542v0.

Lou Ricci (IBM) moved and Bill Martin (Emulex) seconded to accept T11/09-542v0 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 5 August 2009 have been posted as T11/09-456v0.

Bob Nixon (Emulex) moved and Landon Noll (Cisco) seconded to accept T11/09-456v0 as the minutes of the FC-BB-6 ad hoc work group meeting on 5 August 2009. Approved unanimously.

4 Review of Old Action Items

There are no action items.

5 Old Business

No old business was presented.

6 Scheduled Business

6.1 Obsolete SPMAs

T11/09-514v0

DeSanti (Cisco)

This presentation offered detailed changes to the text of FC-BB-5 to follow up on the agreement of this work group to obsolete Server-Provided MAC Addresses (SPMA).

It was agreed to replace the modified table 27 by a single sentence.

It was agreed that changes to the MIBs may obsolete objects and fields within them but shall not change the size of objects, and that advice of a MIB expert may be needed to properly revise it.

It was requested to defer voting on this proposal until a later meeting of this work group.

6.2 FCoE end-to-end: adding details

T11/09-539v0

Gai (Cisco)

The presentation continued to examine the architecture introduced in T11/09-425v0, based on partitioning the functions of a Fabric into control/management elements and data routing elements.

It observed that the periphery of such a Fabric could be viewed as identical to a single FCF. The modified system was diagrammed as though each end device was directly attached to a data routing element, and a stated goal of the presenter was to enable short, but monitored and controlled, frame routing from one FCoE device to another.

Another goal is to be able to share a limited pool of domain IDs among a potentially very large number of Ethernet switches attempting to act as FCFs. This is enabled by requiring domain IDs only for control/management elements.

The security of the internal protocols remains an open issue. Several approaches were considered, but the presenter has found none that are really attractive.

It was recommended to look into an IP encapsulation of the internal protocols, enabling well-established IP security methods to be used.

It was recommended to defer consideration of key management technologies until a need is more definitively scoped.

6.3 Adapter Based Shortcuts

T11/09-515v0, -516v0

Hufferd (Hufferd Ent.)

T11/09-516 is a presentation and overview; T11/09-515 is a detailed protocol proposal.

The presentation gave an overview of an approach to allowing direct ethernet communication between end devices, depending on a BB-5-capable FCF for discovery and login.

Some new FIP operations were proposed. They were tentatively based on the extensions to FIP Keepalive to avoid spurious error behavior, since there is no FC-BB-5 specification other than vendor specific error for treatment of FIP codes and subcodes other than those specified in FC-BB-5.

Issues were raised with sending a FIP “probe” to a constructed MAC address of unknown capability:

- The existence of an N_Port_ID does not assure the constructed MAC address is assigned (e.g., the N_Port is attached via FC and has no MAC address); and
- Even if the MAC address is assigned, the destination N_Port may not be shortcut-capable and a potentially long timeout is experienced.

An issue was raised with the need to base ACL creation on a request from an end device: It was considered to be less robust than “hard zoning”.

The specific ACL created to allow confirmation of peer support of shortcuts look like they would enable a rogue N_Port to spoof an FCF to an FC-BB-5 N_Port.

6.4 Proxy Based Shortcuts

T11/09-517v0, -518v0

Hufferd (Hufferd Ent.)

T11/09-518 is a presentation and overview; T11/09-517 is a detailed protocol proposal.

This presentation was deferred due to lack of time.

6.5 Filling the Virtualization Swamp

T11/09-412v1

Crandall (Brocade)

This presentation was deferred due to lack of time.

6.6 FCoE Point to Point

T11/09-450v1

Hathorn (IBM)

This presentation was deferred due to lack of time.

7 Unscheduled Business

No unscheduled business was presented.

8 Review of Action Items

There are no open action items.

9 Meeting Schedule

Request 6 hours at the T11 plenary week hosted by FCIA in New Orleans LA, 7-11 December 2009.

10 Adjournment

Roger Hathorn (IBM) moved and Bob Nixon (Emulex) seconded to adjourn. Approved unanimously.

The regular meeting was adjourned at 12:30 AM PDT on 7 October 2009.

11 Status of Open Proposals

Document Title	Number	Disposition	Author
Obsoleting SPMAs	T11/09-514	Carry for later vote. Version presented was T11/09-514v0.	DeSanti (Cisco)
FCoE end-to-end: adding details	T11/09-539	Close, tutorial. Version presented was T11/09-539v0.	Gai (Cisco)
Adapter Based Shortcuts text	T11/09-515	Carry for further consideration. Version presented was T11/09-515v0.	Hufferd (Hufferd Ent.)
Adapter Based Shortcuts presentation	T11/09-516	Carry for further consideration. Version presented was T11/09-516v0	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 T11/09-450v1	Hathorn (IBM)

12 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	Joe Pelissier
CISCO SYSTEMS	Landon Noll
CISCO SYSTEMS	Silvano Gai

Organization	Representative
CISCO SYSTEMS, INC.	Claudio DeSanti
EMC	David Black
EMC	Erik Smith
EMC	Gary S. Robinson
EMULEX	Bob Nixon
EMULEX	William R. Martin
ENDL TEXAS	Ralph Weber
HEWLETT PACKARD	Jieming Zhu
HUAWEI SYMANTEC	Michael Ko
HUFFERD ENTERPRISES	John Hufferd
IBM	Louis Ricci
IBM	Roger Hathorn
JDSU	Jason Rusch
JDSU	Joy Jiang
LSI CORP.	John Lohmeyer
MELLANOX TECHNOLOGIES	Diego Crupnicoff
MICROSOFT CORPORATION	Robert Griswold
NETAPP	Frederick Knight
PMC-SIERRA	Brian L'Ecuyer
QLOGIC	Giridhar Malavali
QLOGIC CORP	Alan Spalding
QLOGIC CORP.	Craig W. Carlson
SOLUTION TECHNOLOGY	Robert Kembel
SYMANTEC	Roger Cummings
TRUE FOCUS, INC	Horst Truestedt
VMWARE	Lawrence Lamers