

Draft Minutes

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

February 4, 2013 - 9:00 AM to 12:00 PM PST

February 5, 2012 - 1:30 PM to 5:30 PM PST

Palm Springs, CA

The FC-SW-6 Study Group of the Fibre Channel Protocol (T11.3) Task Group held a regular meeting in Palm Springs, CA on February 4 & 5, 2013, hosted by FCIA. Attendance is tabulated at the end of this document.

Minutes were taken by David Peterson (Brocade) (david.peterson@brocade.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 Craig Carlson (QLogic) opened the regular meeting Monday February 4, 2013 at 1:10 PM PST. He thanked our host organization, FCIA, 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.

No person identified himself as a member of an organization that is not a member of T11.

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

Lou Ricci (EMC) moved and Roger Hathorn (IBM) seconded to accept T11/13-036v0 as the agenda for this regular meeting. Approved unanimously.

3.2 Review of Minutes

Sandy Wilson (Fujitsu) moved and Lou Ricci (EMC) seconded to approve the minutes posted as. Approved unanimously.

4 Review of Old Action Items

Editor to review the text for SW_ACC and propose wording - Carry

Editor to incorporate 12-036v2 into the next revision of FC-SW-6. - Complete

Editor to incorporate 12-036v3 into the next revision of FC-SW-6. - Complete

Dave to create a document that provides the differences and reuse with respect to the currently approved Controlling Switch redundancy protocol. - Carry

Editor to incorporate 12-476v0 into the next revision of FC-SW-6. - Complete

5 Old Business

5.1 FC-EE (12-073v4) Carlson (QLogic)

Deferred to the April meeting week.

5.2 Distributed Switch NPZD Order (12-141v2) Hathorn (IBM)

Slides proposing the use of a sequence number per FDF to maintain ordering of received NPZDs. There was discussion on the need for a sequence number if a distribution tree is used.

5.3 Distributed Switch protocols (12-465v0) Peterson (Brocade)

Dave presented a new proposal (13-044v0) that contains all approved Distributed Switch text along with the text from 12-465v0 and 12-466v0, and asked the group to review and provide any comments. The goal is to propose a single Controlling Switch redundancy protocol that will work for all in April.

5.4 Distributed Switch protocol payloads (12-466v0) Peterson (Brocade)

See agenda item 5.3.

6 Scheduled Business

6.1 Distributed FDF Joining Fabric Serialization (12-459v0) Driever (IBM)

Slides discussing serialization of NPRD and NPZD during the ASL instantiation process and text changes. Patty moved and Claudio seconded to approve 12-459v0 as modified for inclusion into FC-SW-6. Motion passed unanimously.

AI - Patty to update and post 12-459v0 as modified.

AI - Editor to incorporate 12-459v0 as modified.

6.2 Textual revisions to the HA Protocol (13-014v0) Ayandeh (HP)

Slides proposing text changes to the currently approved redundancy protocol.

6.3 Dual Redundancy with Additional FCF(s) ver Virtual Domain (13-010v0) Ayandeh (HP)

Slides proposing to remove the DSD and DSS DS_ILS from the Controlling Switch redundancy protocol, and the decoupling of redundancy and forwarding.

6.4 Multiple FCF Redundancy Proposal - Issues & Questions (13-022v0) Ayandeh (HP)

Slides discussing the current redundancy model and the advantages and disadvantages of more than two cSwitches.

6.5 Distribute Fabric WWN (13-007v0) May (IBM)

Slides asking how does the Fabric_Name provided to FCDFs/FDFs? A new Fabric Name descriptor was proposed and discussion ensued on if a new descriptor is needed or a Fabric_Name field be added to the Membership Set descriptor. Further discussion will occur in April.

6.6 FCDF Gathered Configuration Notification Text (13-019v0) May (IBM)

Proposed text for a new DS_ILS to communicate configuration to the Primary cSwitch. Henry made a motion to approve, but no second was made. The group indicated more text on how the new DS_ILS is used is needed. The proposal will be revised for April.

6.7 How Things Work When They Break (13-032v0) Johnson (Brocade)

Slides discussing the behavior when AISL/ASL failures occur in a functioning Distributed Switch. There was discussion if synchronization traffic can be sent via ASLs in the Virtual Domain. There was no agreement at this time.

The behavior if a Primary and Secondary split was discussed with three options: (1) segment Secondary ISL to FC Fabric, (2) restart the Secondary as Primary for a new Virtual Domain, (3) Secondary sends CVL to all attached FCDFs. Group consensus is option 3.

6.8 FLOGI Processing (12-475v1) DeSanti (Cisco)

Slides discussing the Distributed Switch FLOGI processing behavior. Feedback was provided and the proposal will be updated for the April meeting.

6.9 Removing Out-of-Order (12-474v1) DeSanti (Cisco)

Updated slides proposing the use of a distribution tree to minimize out-of-order for VA_Port link services. There was discussion on the requirement to process VA_Port link services in the order received. Claudio and Roger will work offline to propose a combine proposal.

6.10 Removing VA_RJT (12-473v0) DeSanti (Cisco)

Slides stating a new VA_RJT is not needed in a Reject payload to allow for the relaying between Controlling Switches and or FCDFs. After discussion the group felt that a new extensible reject for the Distributed Switch is beneficial and the new reject will remain.

7 Unscheduled Business

7.1 Handling Out-of-Order (13-057v0) DeSanti/Hathorn (Cisco/IBM)

Slides proposing to add a distribution, prioritize NPRD, AZAD, and NPZD requests, remove the sequence number from NPRD and AZAD, and add associated text.

Roger Hathorn (IBM) moved and Claudio DeSanti (Cisco) moved to accept 13-057v0 for inclusion into FC-SW-6. Motion passed unanimously.

AI - Editor to incorporate 13-057v0.

8 Project Schedule

Milestone	Expected date
Last Technical Input	April 2013
T11 letter Ballot	TBD
Forward to INCITS	TBD

9 Review of New Action Items

AI - Patty to update and post 12-459v0 as modified.

AI - Editor to incorporate 12-459v0 as modified.

AI - Editor to incorporate 13-057v0.

10 Meeting Schedule

Request 8 hours at the T11 plenary week.

11 Adjournment

Lou Ricci (EMC) moved and Patty Driever (IBM) seconded to adjourn at 12:00pm February 5. Approved unanimously.

12 Attendance

BROADCOM Pat Thaler

BROCADE David Peterson

BROCADE Howard Johnson

BROCADE Steven L. Wilson

BROCADE John Crandall

CISCO SYSTEMS Landon Noll

CISCO SYSTEMS, INC. Claudio DeSanti

DELL Hiren Desai

EMC Erik Smith

EMC Louis Ricci

EMULEX David Baldwin

EMULEX CORPORATION Gautam Shiroor
FUJITSU AMERICA, INC. Sandy Wilson
HEWLETT-PACKARD Siamack Ayandeh
HEWLETT PACKARD CO. Nadaraha (Nava) Navaruparajah
IBM Henry May
IBM Patty Driever
IBM Roger Hathorn
JDSU Jason Rusch
JUNIPER Joseph White
LSI CORP. John Lohmeyer
NETAPP Frederick Knight
NETAPP INC Heather Lanigan
ORACLE Roger Dickerson
QLOGIC CORP. Craig W. Carlson