Minutes Joint T11.3/T10 Activity Working Group AdHoc Meeting - T11/00-242v0.pdf
San Diego, CA, April 5, 2000
Stewart Wyatt – Secretary

1 Introductions: Dale LaFollette

Dale LaFollette called the meeting to order at 3 PM and had the participants introduce themselves.

2. Approve this agenda: T11/00-176v0 Dale LaFollette

3. Approve 02/14/00 minutes: T11/00-167v0 Stewart Wyatt

Paul Suhler had suggested two changes. Correcting the reference to the SET COMMAND for SET was approved. The group agreed with the minutes on the other suggestion. Stewart Wyatt will revise the minutes and post them to the website.

4. Review old action items: Stewart Wyatt

#1 Paul Suhler – Revise proposal for SET CAPACITY Command, T10/00-161r0. Completed
#2 Ralph Weber – will take the recommendations to the plenary made in today's meeting to the SCSI plenary. Completed
#3 Carl Zeitler – Continue BA_ACC discussion off line and return with a proposal. Completed
#4 Group – Review Carl's proposal extending RR_TOV proposal for action next month – deferred until next month because of lack of time.
#5 Dave Peterson – Create and champion new SSC version proposal. The proposal has been completed and will be presented next month in the T10 meetings. The document number is T10/00-173r0
#6 Bob Snively – FS end exchange cases needs to include class 3 of lost FCP_CONF. Check for other new end exchange cases. Ongoing
#7 Neil Wanamaker – Revise proposal defining behavior when both target and initiator bits are set in PRLI. Ongoing
#8 Charles Binford – Proposal for target to inform initiator of cleared commands. Ongoing
#9 Bob Snively – Request Bill Martin to review out-of-order proposal for corner case problems. Bill Martin has agreed to review the proposal when he gets a chance

+++ Joint T10/T11.3 +++
5. FCP-2 T10 FCP2R04 Bob Snively

OOO Error Recovery T10/00-137r2 Carl Zeitler

Carl reviewed the Summary of Major Changes page in this document. Carl removed the use of REC for Class 2 error recovery except for data recovery cases. Jim Coomes

commented that he thought the REC was necessary because the ABTS did not reach the appropriate level to complete the function. Carl did not see that as a problem. Matt Wakeley commented that the use of REC was to achieve a classless recovery methodology. Carl did not believe it provided any new information and was unnecessary. Neil Wanamaker asked if the ABTS wouldn't abort the exchange. Bob Snively reminded him of the new bit that indicates to abort only the Sequence. Bob supported Matt's comment that the REC should be retained for the classless recovery. An action item for the group was taken to review the removal of REC for a decision next month.

Carl reviewed the case of Class 2 FCP_CMND lost to demonstrate the procedure without REC. Matt Wakeley questioned not setting the LS bit on a lost command. After some discussion, Carl agreed to look into it.

Next Carl reviewed "D.5 Class 3 FCP_RSP Lost, No FCP_CONF Req". In a queued environment the target has to keep the FCP_RSP until REC_TOV expires. The resources required to keep the exchange status in a queued environment excessively large for a peripheral. Jim Coomes argued that the exchange is closed once the target ships the FCP_RSP unless it requests a FCP_CONF. Disk drive manufacturers are reluctant to implement this extended error recovery. Jim was concerned that someone reading the document would assume that this recovery applied to disk drives. Some clarification was requested in both the text of the FCP and in the diagram. Dave Peterson was concerned about the amount of text going into the diagram, which he felt belonged in the text of the document.

There was a discussion as to whether a class 3 target implementing queuing was required to use FCP_CONF, Matt thought that the text does not require this behavior. Bob thought it did.

Another discussion was whether an Exchange is open or closed in class 3 after sending RSP without CONF. Carl's proposal indicates that the Exchange remains open. "Magic" happens when a REC is sent against a closed exchange and the target resends a lost response. The host determines from the REC response if a transfer ready or a response should be requested based on whether the target indicates the exchange is open or closed. Dale wants to close the exchange and keep the exchange status block open to preserve the existing implementations. Dale called for a straw poll whether the exchange should be closed, 6 in favor, or left open, 1 in favor.

Carl reviewed another ladder diagram"D.5? Class 2 ACK to FCP_CMND and FCP_RSP Lost, no FCP_CONF Req". Carl characterized this case as, "ABTS passing in the night". An ACK to a command and a FCP_RSP are both lost. Both the target and the initiator launch an ABTS.

Charles Binford observed that when Carl eliminated the REC he also eliminated the SRR. Charles didn't object to removing the REC, but wanted the SRR to be kept. Charles wanted to have the target to be told explicitly to resend the data. This was agreed to though use of the REC in Class 2 remained optional.

The next ladder diagram was "D.5?? Class 2 ACK to FCP_CMND and FCP_RSP lost plus ACK lost to previous FCP_RSP". In this case of multiple errors, the host is unable to distinguish which exchange to abort. An action item was generated.

Letter Ballot Comment Results/Comments	T10/00-005r0	Bob Snively
Letter Ballot Resolutions	T10/00-150r2	Bob Snively

Bob began reviewing George Penokie's comments.

George objected to capitalizing "information unit" which he said is not the procedure for T10 documents. Bob accepted George's motion. Jim Coomes objected and made a motion to keep it capitalized with Horst Truestedt seconding. A straw poll vote was generated to resolve the issue: We should use "information unit" only as an acronym that is capitalized except where it is defined in the abbreviation list. The results were 6 in favor, 5 Opposed, 3 Abstain.

George also objected to capitalizing various Fibre Channel terms. Bob responded that these terms have always been capitalized in Fibre Channel and he wanted to follow the Fibre Channel tradition. There was an observation that Fibre Channel has not done this consistently. Bob agreed to insure that the document was consistent.

Finishing George's comments, Bob began reviewing Charles Binford's comments (LSI Logic).

Several of Charles' comments questioned the behavior of a PRLI. The decision was made that when a new PRLI is received to treat it as a reset for that image pair and clear any open operations.

LSI comment 5.9 addressed process associator. After some discussion between Charles Binford, Carl Zeitler and Bob, it was decided to drop processor associators from FCP-2, replacing them with conditional SIDs. The Secretary expects that there will be more discussion on this in the next meeting.

Finishing Charles comments, Bob moved on to the comments from Gene Milligan of Seagate.

6. New/Old Business

None

+++ T11.3 +++
7. New/Old Business

None

+++ T10 +++
8. New/Old Business

8A. Set Capacity Command T10/00-161r1 Paul Suhler

Paul reviewed the changes he had made to his proposal. The group accepted the proposal for inclusion in SSC-2 with modifications noted in the action items.

+++ Admin +++
9. Next Meeting Requirements Dale LaFollette

Dale assumed we would take as much time as we can get to continue the FCP-2 review.

10. Review New Action Items Stewart Wyatt

Old Action Items:
#1 Bob Snively – FS end exchange cases needs to include class 3 of lost FCP_CONF. Check for other new end exchange cases.
#2 Neil Wanamaker – Revise proposal defining behavior when both target and initiator bits are set in PRLI.
#3 Charles Binford – Proposal for target to inform initiator of cleared commands.
#4 Bill Martin requested to review out-of-order proposal for corner case problems.
#5 Carl Zeitler: Proposal extending RR_TOV proposal for action next month

New Action Items
#6. Review Dave's SSC-2 proposal, T10/00-173r0, for the SSC-2, prior to next month's T10 meeting.
#7. Paul Suhler: Update T10/00-161r1, noting that the command applies to the "mounted" media and persists with that media through power cycles, resets and remounts.
#8. Group: Compare Carl's error recovery diagram to see the impact of removing REC from the Class 2 error recovery by reviewing T10/00-137r1 and r2.
#9. Carl Zeitler: On a lost command check to see if the LS bit needs to be set to abort the exchange.
#10. Bob Snively: Text clarifying the differences between the cases of exchange and sequence recovery and queuing and non-queuing environments.
#11. Carl Zeitler: Return the SRR to all of the error recovery cases and change the text to state that the exchange remains open in class 3.
#12. Dave Peterson to talk to Jim Nelson to see that all of the error recovery changes are implemented in FC-FS.
#13. Carl Zeitler Review diagram D.5?? and propose a solution to identify the correct exchange to abort. Submit the problem to the reflector for wider comment.
#14. Charles Binford: Whether the added REC-TOV for out-of-order recovery should be required for in-order recovery.

11. Adjournment: Dale LaFollette

The meeting was adjourned at 8:45.

Attendance:

Dale LaFollette	StorageTek	Stewart Wyatt	HP
Bob Snively	Sun	Carl Zeitler	Compaq
Charles Monia	Adaptec	David Neil	S.A.N.
Neil Wanamaker	Crossroads	Terence Kolleher	Pathlight Technolofy
Pak Seto	Quantum	Colin Schaffer	Mylex/IBM
George Penokie	IBM	Paul Suhler	Seagate
Mike Fitzpatrick	Fujitsu	Naoki Watanabe	Hitachi
Matt Gaffney	StorageTek	Scott Carlson	Amhdahl
Bret Ketchum	CNT	Ralph Weber	ENDL
Joe Breher	Exabyte	Matt Wakeley	HP/Agilant
John Lohmeyer	LSI Logic	Arlan Stone	UNISYS
Ed Schurig	Interphase	Jim Coomes	Seagate
David Peterson	STK-NBG	Horst Truestedt	TrueFocus
Charles Binford	LSI Logic	Michael Hoard	IBM