

Notes from fcp2r04.pdf

Page 8

Note 1; Label: Gene Milligan; Date: 1/12/0 9:36:40 PM

1) There should not be two table ones.

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Note 1; Label: Gene Milligan; Date: 1/12/0 9:40:27 PM

2) In the table of contents Table F.1 is missing a title.

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Note 1; Label: Gene Milligan; Date: 1/12/0 9:43:47 PM

3) FCP-2 is not X3.269.

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Note 1; Label: Gene Milligan; Date: 1/12/0 9:52:28 PM

4) Update the introduction to delete 133 Mbps and the normative references to call out a viable PH.

Note 2; Label: Gene Milligan; Date: 1/12/0 9:57:06 PM

5) In the text of the standard please delete revision designations.

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Note 1; Label: Gene Milligan; Date: 1/12/0 10:05:39 PM

4) Portions of FCP-2 that are written as if this is a revision of FCP should be re-written (e.g., delete discussion of where material that was in FCP is now. Replace second revision with -2 or version two globally.

Note 2; Label: Gene Milligan; Date: 1/20/0 2:29:24 AM

7) Replace "document" with "standard" and "documents" with "standards" globally.

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Note 1; Label: Gene Milligan; Date: 1/20/0 2:29:32 AM

8) Either delete "FC-4" or add a reference to its definition.

Note 2; Label: Gene Milligan; Date: 1/20/0 2:29:42 AM

9) In scope and if elsewhere delete "approved" in the text when referring to items in FCP-2.

Note 3; Label: Gene Milligan; Date: 1/20/0 2:29:48 AM

10) In Normative References replace "text" with "standard".

Note 4; Label: Gene Milligan; Date: 1/20/0 2:39:00 AM

11) Should FC-PH-3 be called out as a normative reference? References under development needs to be updated. FC-AL-2 should not be called out as a reference in FC-AL-2. X3T10 is NCITS T10 although it may not be correctly used depending upon the update (e.g., T10 did not develop FC-PH-3.

Why would FC-AL-3 be a reference for FC-AL-2? Why is FC-TAPE a reference?

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Note 1; Label: Gene Milligan; Date: 1/20/0 2:43:34 AM

12) <<Definitions, conventions, abbreviations, acronyms and symbols applicable to this standard are provided, unless they are identical to that described in any referenced standard, in which case they are included by reference. Some definitions from the glossary or body of other standards are included here for easy reference.>> The second sentence contradicts the first. Suggest using SPC-2 as a reference for this introduction.

Note 2; Label: Gene Milligan; Date: 1/20/0 4:23:07 PM

13) Some definitions site a standard's acronym and some the number. They should be consistent and the style guides indicate that it should be name and number along with the publication year.

Note 3; Label: Gene Milligan; Date: 1/20/0 4:28:38 PM

14) <<base address: The address of the lowest address byte to be transferred to or from an

application client buffer.>> should be "base address: The address of the lowest addressable byte that may be transferred to or from an application client buffer." or "base address: The address of the first addressable byte that may be transferred to or from an application client's buffer."

Note 4; Label: Gene Milligan; Date: 1/20/0 4:44:00 PM

15) Are the FC-AL-3 definitions stable enough to include in FCP-2? Why does CMR have to be dedicated to an MCM circuit as opposed to shared? The BMCM pdf is missing probable underscores.

Page 19

Note 1; Label: Gene Milligan; Date: 1/21/0 3:59:45 PM

16) Shouldn't the data overlay definition should be for overlapping addresses not exact offsets?

Note 2; Label: Gene Milligan; Date: 1/21/0 4:03:04 PM

17) Globally check for "which" to see which ones should be replaced with "that".

Note 3; Label: Gene Milligan; Date: 1/22/0 2:54:32 PM

18) Replace the references to FC-AL with references to FC-AL-2.

Page 20

Note 1; Label: Gene Milligan; Date: 1/22/0 2:54:51 PM

19) Change <<The initiator-specified component>> to "An initiator-specified component". There are other components specified by the initiator.

Note 2; Label: Gene Milligan; Date: 1/22/0 3:01:46 PM

20) Change <<[ANSI 1304-D]>> to "[NCITS 1304-D]" globally. Globally change <<this document>> to "this standard".

Note 3; Label: Gene Milligan; Date: 1/22/0 2:56:51 PM

21) The definition of FC-PH conflicts with that of the FC-PH standard.

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Note 1; Label: Gene Milligan; Date: 1/22/0 3:00:43 PM

22) Should the dash in <<loop initialization fabric assigned - loop initialization sequence>> be "of a"?

Otherwise it seems to indicate LIFA means either. Same comment for LIHA, LIPA, and LISA.

Note 2; Label: Gene Milligan; Date: 1/22/0 3:06:06 PM

23) Change <<Small Computer System Interface. Either SCSI-2 or SCSI-3.>> to "Small Computer System Interface. Either SCSI-2 or a newer SCSI standard"

Note 3; Label: Gene Milligan; Date: 1/22/0 3:18:09 PM

24) In may and may not replace <<indicated>> with "indicates". In optional change <<this standards>> to "this standard". In reserve replace <<as error>> with "as an error".

Note 4; Label: Gene Milligan; Date: 1/22/0 3:14:40 PM

25) What guidance is used to choose the label <<ignored>>, <<obsolete>>, or <<reserved>>. Two are clear in other standards but <<ignored>> causes confusion in the meanings.

Page 22

Note 1; Label: Gene Milligan; Date: 1/22/0 3:19:46 PM

26) In shall delete <<If such a rule is not followed, the results are unpredictable.>>

Note 2; Label: Gene Milligan; Date: 1/22/0 3:24:25 PM

27) Change <<These words and terms are defined either in or in the text where they first appear.>> to "These words and terms are defined either in the glossary or in the text where they first appear."

This is the wording found in SAM-2, since the glossary is titled Definitions perhaps we could have chosen a better word (i.e., Definitions).

Note 3; Label: Gene Milligan; Date: 1/22/0 3:28:12 PM

28) <<The names of fields are in small uppercase (e.g., ALLOCATION LENGTH). When a field name is a concatenation of acronyms, uppercase letter may be used for readability (e.g., NORMACA).>> is not the convention followed by other SCSI standards. The SCSI convention, followed by most but not all editors is for field names to use small uppercase. For concatenation the only convention I have noticed is underscores.

Note 4; Label: Gene Milligan; Date: 1/22/0 3:32:31 PM

29) I think <<Lists sequenced by letters (e.g., a-red, b-blue, c-green) show no priority relationship between the listed items.

Numbered lists (e.g., 1-red, 2-blue, 3-green) show a priority ordering between the listed items.>>

should be "Lists sequenced by letters (e.g., a-red, b-blue, c-green) show no sequential preference between the listed items.

Numbered lists (e.g., 1-red, 2-blue, 3-green) show a sequential ordering between the listed items.

Page 23

Note 1; Label: Gene Milligan; Date: 1/22/0 3:40:31 PM

30) Change <<The detailed implementation that supports that stream is not defined, although originator and responder FCP_Ports are assumed to have a common service interface for use by all FC-4s that is similar in characteristics to the service interface defined in annex S of ANSI X3.230.>>

to "The detailed implementation that supports the stream is not defined, although originator and responder FCP_Ports are assumed to have a common service interface, for use by all FC-4s, that is similar in characteristics to the service interface defined in annex S of ANSI X3.230." and collect a long sentence prize.

Note 2; Label: Gene Milligan; Date: 1/22/0 3:43:47 PM

31) Regarding <<The SCSI Common Access Method [CAM] is one example of a service interface that fulfills the requirements specified in SAM and SAM-2.>> it has been reported that CAM is SCSI-2 compliant but not SAM compliant and thus the CAM-3 project.

Note 3; Label: Gene Milligan; Date: 1/24/0 2:10:24 PM

32) In Table 1 Acknowledge Command Complete is not actually a SCSI function is it? Perhaps the column title should be Function or the item should perhaps just be ACK(REQ).

Page 24

Note 1; Label: Gene Milligan; Date: 1/27/0 2:46:06 AM

35) Change <<until all data described by the SCSI command is transferred.>> to "until all data describing the SCSI command is transferred."

Note 2; Label: Gene Milligan; Date: 1/27/0 2:49:17 AM

36) How does <<The transmission of the initial FCP_XFER_RDY IU may be disabled for those systems having other mechanisms for controlling the data transfer.>> relate to the FCP-2 standard?

Note 3; Label: Gene Milligan; Date: 1/27/0 2:50:46 AM

37) <<Note: FCP_XFER_RDY on read operations is made obsolete in FCP-2.>> Where?

Note 4; Label: Gene Milligan; Date: 1/27/0 2:54:11 AM

38) <<if an unusual condition has been detected,>> What is an unusual condition? Is an error being referred to?

Page 25

Note 1; Label: Gene Milligan; Date: 1/27/0 3:01:40 AM

38) Globally search on "will" & "must" and replace with shall or should as appropriate.

Note 2; Label: Gene Milligan; Date: 1/27/0 3:04:41 AM

39) What does <<SCSI allows the initiator function in any FCP_Port and the target function in any FCP_Port.>> mean?

Note 3; Label: Gene Milligan; Date: 1/27/0 3:11:35 AM

39) <<For those special cases>> It is in the eye of the beholder what is special.

Note 4; Label: Gene Milligan; Date: 1/29/0 2:34:26 PM

40) Delete <<In many cases, SCSI communications between an application client and a device server are stateless. In such applications, verification of the delivery and execution of SCSI commands is often not critical. Any changes in execution sequence caused by link failures or switch latencies are not important and the recovery and retry mechanisms can be executed while other activities are continued by the application client and the device server.>> Search globally on <<can>> and replace with some form of "may".

Note 5; Label: Gene Milligan; Date: 1/29/0 2:39:30 PM

41) Change <<For those special cases where checking for the precise delivery of SCSI commands is necessary for the proper operation and error recovery of a device server, FCP-2 defines an additional optional function called precise delivery.>> to "FCP-2 defines an optional function called precise delivery."

Note 6; Label: Gene Milligan; Date: 1/29/0 2:41:23 PM
Null label.

Note 7; Label: Gene Milligan; Date: 1/29/0 3:28:58 PM

42) <<in the CRN field for each command that is transmitted that also requires precise delivery. The integer begins with a value of one after any Target Reset, LUN Reset, or Fibre Channel Login or Process Login occurs. After the number of precisely delivered commands causes the integer to increment to 255, the integer will wrap back to a value of one.>>

Delete "also". Globally search the normative clauses to replace <<will>> with "shall".

Page 26

Note 1; Label: Gene Milligan; Date: 1/29/0 3:35:55 PM

43) Rule 5 of precise delivery either makes some special unstated assumption as to what a queue is or fails to precisely define the outcome of the command (e.g., aborted) and in 7 zero is not reserved it has the meaning of not precise delivery. Delete reserved.

Note 2; Label: Gene Milligan; Date: 1/29/0 3:39:22 PM

44) <<Any command, including such initialization commands as INQUIRY, TEST UNIT READY, and MODE SENSE/SELECT may always use a CRN of zero if the state of the EPDC bit is not known or if precise delivery is not required for that command.>>

Delete <<always>> and <<the state of the EPDC bit is not known or if>>. Regardless the result is not precise delivery.

Note 3; Label: Gene Milligan; Date: 1/29/0 3:41:35 PM

45) <<PRLI parameters are used to determine that confirmed completion is allowed>> Is it <<allowed>> or is it "used"?

Page 27

Note 1; Label: Gene Milligan; Date: 1/29/0 3:50:09 PM

46) Change <<Some devices have complex or low-performance recovery algorithms that must be performed if data is lost or damaged in the transmission process. Such devices may find it useful to implement the error detection and data retransmission algorithms defined by clause 12.>> to "Data retransmission algorithms are defined in clause 12."

Page 28

Note 1; Label: Gene Milligan; Date: 1/29/0 3:55:49 PM

47) In Table 3 CLEAR ACA should be Optional but retaining the present note.

Page 30

Note 1; Label: Gene Milligan; Date: 1/29/0 3:59:42 PM

48) Why do 1b and 0b have apostrophe marks?

Note 2; Label: Gene Milligan; Date: 1/29/0 4:04:20 PM

49) In note 12 delete <<proper>>.

Note 3; Label: Gene Milligan; Date: 1/29/0 4:04:53 PM

50) What does it mean to discard a mode page?

Page 32

Note 1; Label: Gene Milligan; Date: 1/29/0 4:10:10 PM

51) In Table 6 it is not clear whether the blank is optional or not allowed.

Page 35

Note 1; Label: Gene Milligan; Date: 1/29/0 9:56:37 PM

52) <<The FCP needs only the standard FC-2 services as described in informative annex S of ANSI X3.230.>> What was the expectation of referencing an informative annex?

Page 37

Note 1; Label: Gene Milligan; Date: 1/30/0 11:52:11 AM

53) <<Since the value of the OX_ID is required by FC-PH to be unique, there is no requirement for an FCP logical unit to check for overlapping commands.>>

Is this correct? In SPI tags are required to be unique but I don't think there is a caveat that they therefore do not need to be checked.

Note 2; Label: Gene Milligan; Date: 1/30/0 11:57:48 AM

54) Change <<SCSI-3 application client buffer offset>> to "application client's buffer offset".

Page 38

Note 1; Label: Gene Milligan; Date: 1/30/0 12:06:06 PM

55) Why is <<"20" hexadecimal>> not 20h as in the conventions? Global question regarding values not following the stated convention.

Page 39

Note 1; Label: Gene Milligan; Date: 1/30/0 12:16:12 PM

56) I seems inappropriate to require elements outside the scope of the standard. Change <<Use of this mechanism requires that the originator have precise and detailed knowledge of the requirements and capabilities of each image in the responder. That information may be obtained by mechanisms outside the scope of the FCP or may be obtained by performing a PRLI requesting informative communication.>> to "Use of this mechanism assumes that the originator have precise and detailed knowledge of the requirements and capabilities of each image in the responder. That information may be obtained by mechanisms outside the scope of the FCP or may be obtained by performing a PRLI requesting informative communication."

Page 40

Note 1; Label: Gene Milligan; Date: 1/30/0 12:26:20 PM

57) <<Immediately after the execution of the first PRLI, both members of all image pairs shall have the same state as they would have after a hard reset or a power on with respect to each other. No tasks, reservations or status shall be present in either SCSI device.>>

Does this outlaw Persistent Reservations across power cycles?

Page 41

Note 1; Label: Gene Milligan; Date: 1/30/0 12:34:46 PM

58) Is it correct that the last obsolete in Table 11 is supposed to be set to a decimal one? According to the conventions that would be the case.

Page 42

Note 1; Label: Gene Milligan; Date: 1/30/0 12:41:54 PM

59) <<the target shall not turn on the FCP_CONF_REQ bit.>>
Does this mean enable it or does this mean set it to one?

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Note 1; Label: Gene Milligan; Date: 1/30/0 12:46:37 PM

60) << A responder receiving such an invalid page shall notify the originator with a PRLI ACCEPT

RESPONSE CODE of 1000b(Invalid service parameters for page) indication.>>

Is this the case if implicit login is in effect?

Page 45

Note 1; Label: Gene Milligan; Date: 1/31/0 3:59:52 PM

61) <<No further FCP communication is possible between those two N_Ports.>>

This implies a requirement. Where is the requirement stated or should this be not allowed rather than not possible?

Note 2; Label: Gene Milligan; Date: 1/31/0 4:02:10 PM

62) <<It is not an error to perform a PRLO for an image pair that is not known to the responder.>>

If not known, is it valid?

Page 46

Note 1; Label: Gene Milligan; Date: 1/31/0 4:13:20 PM

62) <<The Name Server for a fabric is defined by NCITS Project 1356-D, FC-GS-3.>>

Call out the standard not the project. This needs to be a global change by searching on project.

63) Table 13 needs to have the lettering centered vertically in the rows. This is also the case in several other tables but not all.

Page 47

Note 1; Label: Gene Milligan; Date: 1/31/0 4:24:13 PM

63) <<In the event that the Target cannot accept the SRR request, the Target shall present a check condition as if it had responded to an Initiator Detected Error with a Restore Pointers message (i.e., Sense Key = 4h, ASC/ASQ = 48h/00h).>>

Why not "In the event that the Target cannot accept the SRR request, the Target shall present a check condition with Sense Key = 4h, ASC/ASQ = 48h/00h?"

Page 48

Note 1; Label: Gene Milligan; Date: 1/31/0 4:29:53 PM

64) Under Table 16 it is not clear where the i.e., ends nor what it applies to. Parenthesis would solve where it ends but what does it apply to - Table 29? Also "and" is missing before 29.

Page 54

Note 1; Label: Gene Milligan; Date: 1/31/0 9:03:03 PM

65) <<The initiator and target clear all resources that can be cleared unambiguously.>>

This appears to be something that should be stated as a requirement. What is the requirement?

Page 55

Note 1; Label: Gene Milligan; Date: 1/31/0 9:07:56 PM

66) <<The ports may issue additional recovery abort operations if they are unable to determine in a simple manner whether the state of an FCP I/O operation is ambiguous.>>

Simple is in the eye of the beholder. Is there a more specific requirement?

Note 2; Label: Gene Milligan; Date: 2/1/0 8:38:43 AM

67) <<For a target FCP_Port, an exchange is also in an ambiguous state if the exchange exists between the target FCP_Port and an initiator other than the initiator FCP_Port that performed the TARGET RESET.>>

This seems strange or is missing context. The implication is that all initiators, to avoid ambiguous state, must issue a TARGET RESET to all targets and perhaps all LUNs. The correction may be as simple as changing the statement to "After a TARGET RESET for a target FCP_Port, an exchange is also in an ambiguous state if the exchange exists between the target FCP_Port and an initiator other than the initiator FCP_Port that performed the TARGET RESET." But it seems beyond the scope of the standard as to whether the exchange is in an ambiguous state since the behavior from a TARGET RESET is well documented in SCSI standards. It appears that FCP-2 is providing excessive overlapped requirements to SAM and the command standards.

Note 3; Label: Gene Milligan; Date: 2/1/0 8:41:20 AM
68) In item (4) delete "similar".

Note 4; Label: Gene Milligan; Date: 2/1/0 8:47:52 AM
69) What is a recovery abort? Reading further this might be resolved by a forward reference but the terminology seems vulnerable for being mistaken with normal SCSI terminology.

Note 5; Label: Gene Milligan; Date: 2/1/0 9:03:53 AM
70) The last defining paragraph for the ambiguous state appears to be redundant although ambiguous state still seems ambiguous and I assume could be made less ambiguous. The note is also redundant. The redundancy stems from the organization of reset between TARGET RESET and LOGICAL UNIT RESET text. Perhaps the redundancy is appropriate or perhaps there should be a generic reset definition hooked to the specific differences.

Note 6; Label: Gene Milligan; Date: 2/1/0 9:26:41 AM
71) <<The initiator and target clear any resources that can be cleared unambiguously.>>
This seems to be a conflict with SAM and the command sets. CLEAR TASK set should clear the task set not selectively clear tasks. This comment also applies to ABORT TASK SET.

Page 56

Note 1; Label: Gene Milligan; Date: 2/1/0 9:31:06 AM
72) How should Read Data and Write Data be set for complex commands such as Write and Verify, third party copy, and some XOR commands?

Note 2; Label: Gene Milligan; Date: 2/1/0 9:41:09 AM
73) <<The Flag bit previously defined by SAM in the control byte of the CDB is obsolete and shall be set to zero.>>

The definition of obsolete allows implementation according to a prior standard. I think this should be changed to "The Flag bit previously defined by SAM in the control byte of the CDB is obsolete." or to "The Flag bit shall be set to zero."

Page 57

Note 1; Label: Gene Milligan; Date: 2/1/0 10:29:49 AM
74) <<The FCP_Port wanting to terminate the exchange generates an ABTS sequence.>>

Replace <<wanting to>> with "may">

Note 2; Label: Gene Milligan; Date: 2/1/0 10:35:26 AM
75) <<A Recovery_Qualifier is established if necessary to discard any pending frames for the exchange and to prevent the reuse of the OX_ID and RX_ID for at least R_A_TOV. The BA_ACC shall request that the Recovery_Qualifier cause all frames for all sequences of the exchange to be discarded by setting SEQ_CNT_LO to 0 and SEQ_CNT_HI to FFFF h.>>

Discard is not a defined SCSI process. Should this be cleared or aborted, or should discard have a defined SCSI process? Also the space in <<FFFF h>> needs to be discarded globally.

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Note 1; Label: Gene Milligan; Date: 2/1/0 10:49:20 AM

76) Change <<the FC_RSP IU shall contain the FCP_RESID_UNDER bit.>> to "the FC_RSP IU shall contain the FCP_RESID_UNDER bit set to one."

Note 2; Label: Gene Milligan; Date: 2/1/0 10:54:36 AM

77) <<by setting the FCP_RESID_OVER bit in the FC_RSP IU.>> Is the setting convention firm enough or should this be "by setting the FCP_RESID_OVER bit in the FC_RSP IU to one."?

Note 3; Label: Gene Milligan; Date: 2/1/0 11:02:59 AM

78) <<transfer has been terminated, all data between the offset of 0 and the highest offset shall have been transferred. The target shall not request that sets of data in the middle of a transfer not be transferred. If error conditions occur that prevent the transfer of a set of data in the middle of a data transfer, the FCP_SNS_INFO shall indicate that only data from the offset of 0 to the highest offset before the untransferred data space has been transferred.>>

Does this language allow certain applications (e.g., video) to transfer erroneous data?

Page 61

Note 1; Label: Gene Milligan; Date: 2/1/0 11:21:46 AM

79) In table 26 bits 5-7 should be reserved in Byte 10. The style of reserved should be standardized.

Two styles are used in table 26.

Page 67

Note 1; Label: Gene Milligan; Date: 2/1/0 12:17:45 PM

80) <<An interconnect tenancy is a period of time during which a target device owns or may access the interconnect. For example, on FC-AL loops or Fibre Channel Class 1 connections, a tenancy typically begins when a device successfully opens the connection and ends when the device releases the connection for use by other device pairs.>> The discussion in this subclause does not include how it relates to the disconnect-reconnect page.

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Note 1; Label: Gene Milligan; Date: 2/1/0 12:29:51 PM

81) <<The CONNECT TIME LIMIT is not applicable for devices attached to links that do not have the concept of link tenancy.>>

How does the SCSI device know if they have the concept? Wouldn't it be easier to have a value indicate that.

Note 2; Label: Gene Milligan; Date: 2/1/0 2:48:20 PM

82) <<The ENABLE MODIFY DATA POINTERS (EMDP) bit indicates whether or not the target may reorder>>

Reorder seems a little strong. I think this should be "The ENABLE MODIFY DATA POINTERS (EMDP) bit indicates whether or not the device server may begin the data transfer at a logical block offset within the requested logical blocks to reduce latency".

Note 3; Label: Gene Milligan; Date: 2/1/0 2:52:56 PM

83) <<If the EMDP bit is one, the target may transfer the FCP_DATA IUs for a single SCSI command in any order.>> Is it necessary to have this be more than one sequential stream beginning at an offset and wrapping? Is this needed for a scatter gather function?

Page 69

Note 1; Label: Gene Milligan; Date: 2/1/0 2:58:27 PM

85) The fairness bits should have their names changed to FAA, FAB, and FAC. I am embarrassed to explain why.

Page 70

Note 1; Label: Gene Milligan; Date: 2/1/0 3:10:23 PM

86) <<If the precise delivery function is not supported by the target, the EPDC bit shall be masked as not changeable and shall follow the MODE SENSE/MODE SELECT rules specified by SPC-2.>>

Why not just not support the page at all if the function is not supported?

Page 71

Note 1; Label: Gene Milligan; Date: 2/1/0 3:20:18 PM

87) <<DISABLE TARGET ORIGINATED LOOP INITIALIZATION (DTOLI)>>

The first portion of the clause is in terms of FC-AL and the last portion in terms of FC-AL-2. Was that intended? If so how does the SCSI device determine which it is attached to? If half of the SCSI devices claim compliance to FC-AL and half FC-AL-2 which type of loop is it?

Page 76

Note 1; Label: Gene Milligan; Date: 2/1/0 4:15:49 PM

88) <<NOTE – Using a value of 0 for this time out value assumes that a Sequence Initiator does not transmit any Frames for a Sequence after an ABTS is sent for that Sequence. If a design uses a queuing mechanism for the transmission of Sequences, the queue for a given Sequence shall be empty before an ABTS for that Sequence can be sent, or the act of sending the ABTS purges the queue.>>

The requirement needs to be moved out of the note and into the text or changed to informative rather than a requirement.

Note 2; Label: Gene Milligan; Date: 2/1/0 4:19:37 PM

89) Change <<NOTE – SCSI Targets are required to implement R_A_TOV ELS in order to time the expected response to a LOGO or PRLO Extended Link Service.>> to "NOTE – R_A_TOV ELS is used to time the expected response to a LOGO or PRLO Extended Link Service."

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Note 1; Label: Gene Milligan; Date: 2/1/0 4:49:21 PM

90) <<Initiators communicating with SCSI devices that do not depend on command ordering or maintaining records of internal device state may simply use the mechanisms described in this chapter to detect the presence of errors, then abort the exchange using an ABORT TASK task management function or a recovery abort function.>>

Delete <<simply>>

Note 2; Label: Gene Milligan; Date: 2/1/0 4:52:02 PM

91) Globally search on chapter and replace it with section or even better search on chapter and section and replace them with clause.

Page 79

Note 1; Label: Gene Milligan; Date: 2/1/0 4:57:10 PM

92) <<The Exchange responder (SCSI Target) shall initiate error detection and recovery described in 12.3 for the following:

1) after expiration of the timeout period REC_TOV and an expected FCP_CONF has not been received.

The Exchange responder (SCSI Target) may also initiate error detection and recovery for the following:

1) for detection of a Sequence error (see 12.3.9).>>

Why use lists only one item long rather than a simple sentence?

Page 80

Note 1; Label: Gene Milligan; Date: 2/1/0 5:02:29 PM

93) Perhaps a spell check should be made. Definitely <<interal>> should not pass a spell check.

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Note 1; Label: Gene Milligan; Date: 2/1/0 5:13:25 PM

94) <<NOTE – The profiles for many class 3 Targets indicate that the Target shall not attempt recovery for such cases and shall depend on Initiator timeouts for recovery.>>

Delete this note or change it to eliminate the shalls (e.g. use a from of assumes).

Page 83

Note 1; Label: Gene Milligan; Date: 2/1/0 5:18:19 PM

95) <<All FCP-2 devices shall support the use of ABTS-Last Sequence of Exchange (ABTS-LS), which uses ABTS to abort the entire Exchange.>>

Delete this sentence or change the introductory portion of Clause 12 that states that all the recovery protocols are optional.

Note 2; Label: Gene Milligan; Date: 2/1/0 5:20:06 PM

96) <<This subclause does not define the protocol by which multiple SCSI Initiators communicate or synchronize shared peripherals.>>

I think <<subclause>> should be changed to "standard".

Note 3; Label: Gene Milligan; Date: 2/1/0 5:35:38 PM

97) <<The ABTS protocol shall be invoked as required by 9.1.1.4 for ambiguous exchanges after certain task management functions have been executed.>>

Which ones are these <<certain ones>>?

Page 85

Note 1; Label: Gene Milligan; Date: 2/1/0 5:42:09 PM

98) <<For the action taken on any other received Frame, see TBD.>>

Not ready for prime time.

Page 87

Note 1; Label: Gene Milligan; Date: 2/1/0 5:44:53 PM

99) <<[Editor's Note: This is new text and may still have some small errors in it. Minor revisions to make it consistent with SAM-2 will probably be installed in the next revision of the document.]>>

Then why did the editor talk the Chairman into a letter ballot? Delete this note.

Page 93

Note 1; Label: Gene Milligan; Date: 2/1/0 5:51:12 PM

101) <<The following extended link services will be specified by a future version of FC-PH. Until that time, they will be specified here for use by all FCP-2 devices, including those specified by the FC-TAPE profile.>>

Delete this subclause.

Page 95

Note 1; Label: Gene Milligan; Date: 2/1/0 5:55:23 PM

102) Annex B uses a third style for hex values. One is needed.

Page 125

Note 1; Label: Gene Milligan; Date: 2/1/0 6:04:46 PM

103) Since this is an informative annex change <<The Fabric SCSI device discovery procedure shall also apply to a F/ NL_Port that supplies the required Simple Name Server service functionality.>> to "The Fabric SCSI device discovery procedure is useful with a F/ NL_Port that supplies the required Simple Name Server service functionality." Globally change all the

instances of <<shall>> in the informative annexes to an informative construction rather than normative.

Page 127

Note 1; Label: Gene Milligan; Date: 2/1/0 6:06:16 PM

104) Delete <<required>> globally in the informative annexes.

Page 131

Note 1; Label: Gene Milligan; Date: 2/1/0 6:09:51 PM

105) Change <<If a device level error is detected by a SCSI Target while it has Sequence Initiative, the only permissible recovery action is the transmission of FCP_RSP with CHECK CONDITION status and an appropriate Sense Key/ASC/ ASCQ.>> to "If a device level error is detected by a SCSI Target while it has Sequence Initiative, the recommended recovery action is the transmission of FCP_RSP with CHECK CONDITION status and an appropriate Sense Key/ASC/ ASCQ." Globally search the informative annexes for permissible and be sure the text is constructed as informative not normative.

Page 135

Note 1; Label: Gene Milligan; Date: 2/1/0 6:12:23 PM

106) <<Annex J FCP-2 requirements for other standards (normative)>>

Move this annex ahead of the informative annexes.

Note 2; Label: Gene Milligan; Date: 2/1/0 6:18:41 PM

107) Change <<The changes outlined in this document effect text presently standardized in FC-PH-2 which will be corrected in the publication of FC-FS.>> to "This annex documents exceptions to FC-PH-2." In addition T10 should seek formal approval by T11 of changes required by T10 in the T11 standards.

Note 3; Label: Gene Milligan; Date: 2/1/0 6:19:50 PM

108) <<The second to the last paragraph of section 21.12.1 on page 49 is duplicated. This must be installed in FC-FS.>>

Delete this subclause.

Note 4; Label: Gene Milligan; Date: 2/1/0 6:21:01 PM

109) <<I believe the wording of Annex A of FCP is better, where it says:>>

Not ready for prime time.

Note 5; Label: Gene Milligan; Date: 2/1/0 6:22:09 PM

108) Clean up J.1.3.

Page 136

Note 1; Label: Gene Milligan; Date: 2/1/0 6:24:12 PM

109) <<At present, this is documented in section 6.2.5. It should be documented instead in FC-FS, section 15.10 or 15.11. Section 6.2.5 will be removed when FC-FS has been updated.>>

Delete this statement (subclause) and move it to a T11 tickler file.

Note 2; Label: Gene Milligan; Date: 2/1/0 6:25:14 PM

110) Clean up J.2.1.

Note 3; Label: Gene Milligan; Date: 2/1/0 6:26:45 PM

111) The table of contents on the last page should be deleted or moved to the table of contents.

Note 4; Label: Gene Milligan; Date: 2/1/0 6:32:32 PM

112) The letter ballot review, in my opinion, clearly indicates the draft was not ready for a letter ballot. T10 has in recent years, stimulated by drafts balloted before there time, made a practice in most cases of conducting editorial review session prior to the forwarding practice. I think the

Chair should make this a general practice in the absence of evidence that there is a reason it is not needed. In addition I think the Chair should encourage new editors to attend at least some of the editorial review meetings to have more understanding of the styles required for standards. The action item from Brisbane for a T10 style guide may also help with the editor awareness.

Additional comments with some overlap in the interest of time from Seagate:

Comment 001, editorial, whole document

There are a number of references to FC-PHx and FC-FS documents. If FC-FS is an acceptable reference, the references to the FC-PHx documents should all be changed to reference FC-FS.

Comment 002, editorial, whole document

Standards are referenced both by number, i.e., X3..., and abbreviation, i.e., SAM-2. An example is page 7, the paragraph above table 1. SAM is referenced as SAM and X3.270.

Comment 003, editorial?, pdf page 29, Doc Page 13, Table 4

Is the last row, FCP exchange information, different from the second row, Open FCP Sequences Terminated, or row 6, Open Tasks? Is this Exchange information for REC? This affects the requirements for Clear & Abort Task Set.

If this is exchange information for REC, the text "for REC" should be added.

Comment 004, technical, pdf page 32, Doc Page 16, Table 7

The third party address format defined here is new and conflicts with existing implementation.

Suggest adding a format field in byte 0. A zero in the field defines the address format below. The PA_VAL could also be used to select the format instead of defining a new field. If PA_VAL is a one, the format is as the new format as in FCP-2 rev 4, If PA_VAL is zero, the format is as below.

Bit	7	6	5	4	3	2	1	0
Byte								
0	0	0	0	0	0	0	0	0
1-4								reserved
5-7								FCP_Port Identifier

Comment 005, technical, clause 6.2, pdf page 38, Doc page 22, last sentence bottom of page 22, first sentence top of page 23.

A PLRI request may also be rejected in the PRLI ACCEpt with one of the response codes. An LS_RJT is generally only returned to an improperly formatted PRLI.

Comment 006, technical, pdf page 40, Doc Page 24, clause 6.2.5, last paragraph
Also, page 120, J.1.5

The behavior of sending an ABTS in response to FCP frames received without a process login is in conflict with PLDA rev 2.1. Clause 9.7 on doc page 34 requires sending a PRL0. FCP-2 should support the PLDA behavior or a method for discovering an FCP-2 environment (i.e., a login bit) needs to be defined.

Comment 007, editorial, pdf page 46, Doc Page 30, clause 7, 7.1, 7.2

FC-GS-3 is referenced as NCITS Project 1356-D, FC-GS-3 and FC-GS-3

Suggest simplifying to just FC-GS-3 in:
clause 7 first paragraph,
clause 7.2 first paragraph, and
clause 7.2 third paragraph.

Comment 008, editorial, pdf page 46, Doc Page 30, clause 7.2

SPC-2 is referenced as NCITS Project 1236 (SPC-2)

Suggest simplifying to just SPC-2 in the second paragraph.

Comment 009, editorial, pdf page 55, Doc Page 39, clause 9.1.1.4, first and second NOTES.

SMA-2 is referenced as NCITS Project 1157-D (SAM-2)

Suggest simplifying to just SAM-2 in both notes.

Comment 010, editorial, pdf page 56, Doc Page 40, clause 9.1.1.4, first and second NOTES.

Same as comment 10. SMA-2 is referenced as NCITS Project 1157-D (SAM-2)

Suggest simplifying to just SAM-2 in both notes.

Comment 011, editorial, pdf page 72, Doc Page 56, clause 10.1.3.4

The sentence "Targets not attached" is before the other text describing the RHA bit. For other bits defined in 10.1.3, this sentence is after the definition text. The ordering should be consistent.

Comment 012, editorial, whole document

FC-AL-3 is referenced as NCITS 1304-D throughout the document.

Suggest changing NCITS 1304-D to FC-AL-3 in the document to be consistent with other references to standards.

Comment 013, technical, pdf page 78, doc page 62, clause 12.1.1, first and only paragraph

ABORT TASK task management referenced, but is no longer a task management function in FCP-2. It is an additional mechanism.

Suggest changing "an ABORT TASK task management function" to "an ABORT TASK function".

Project: FCP-2
Revision: 4
ClauseSubclause: Introduction
PDFPage: 15
DocPage: xv
Line:
CommentType: Editorial
Title: Summary of Clauses and Annexes is Incomplete

Comment:
Does not refer to new clause 7, FC 4 specific name server objects.
Does not describe all annexes.
CommentEnd:

SuggestedRemedy:
ReNUMBER "Clause 7..." through "Clause 11 ..." to one higher and insert
"Clause 7 describes the FC-4 specific name server objects for FCP."
Correct and add descriptions of annexes.
RemedyEnd:

ClauseSubclause: 4.2
PDFPage: 24
DocPage: 8
Line: 1st line, 4th paragraph of 4.2
CommentType: Editorial
Title: Grammar

Comment:
Conjunction needed: "...interpretation of the command, has
determined..."
CommentEnd:

SuggestedRemedy:
Change to "...interpretation of the command and has determined..."
RemedyEnd:

ClauseSubclause: 4.2
PDFPage: 24
DocPage: 8
Line: Next-to-last
CommentType: Editorial
Title: Grammar

Comment:
Subject/verb number disagreement: "FCP_RSP payload carry the FCP
Response information"
CommentEnd:

SuggestedRemedy:
Change "carry" to "carries"
RemedyEnd:

PDFPage: 25

DocPage: 9
Line: Last line, 2nd paragraph under 4.3
CommentType: Editorial
Title: Specify which FC mode page

Comment:
"...Fibre Channel Control page...." is vague.
CommentEnd:

SuggestedRemedy:
Change to "...Fibre Channel Logical Unit Control page...."
RemedyEnd:

ClauseSubclause: 4.9
PDFPage: 31
DocPage: 15
Line: 1
CommentType: Editorial
Title: Capitalization

Comment:
Capitalize first word of heading
CommentEnd:

SuggestedRemedy:
"login/logout" => "Login/logout"
RemedyEnd: