

Voting Results on T10 Letter Ballot 01-183r0 on
Forwarding SST to first public review

Organization	Name	S Vote	Add'l Info
Adaptec, Inc.	Ron Roberts	P Yes	
Amphenol Interconnect	Michael Wingard	A Yes	
Ancot Corp.	Bart Raudebaugh	P Yes	
Andiamo Systems, Inc.	Claudio DeSanti	P Yes	
BREA Technologies, Inc.	Bill Galloway	P Abs	Cmnts
Brocade Comm. Systems, Inc.	Robert Snively	P YesC	Cmnts
Circuit Assembly Corp.	Dennis Lang	A Yes	
Cisco Systems, Inc.	David Peterson	P Yes	
CMD Technology		DNV	
Compaq Computer Corp.	Robert C. Elliott	P YesC	Cmnts
Congruent Software, Inc.	Peter Johansson	P Abs	Cmnts
Crossroads Systems, Inc.	John Tyndall	A Yes	
Dallas Semiconductor	Charles Tashbook	P Yes	
Dell Computer Corp.	Kevin Marks	A Yes	
EMC	Gary S. Robinson	P Yes	
Emulex	Robert H. Nixon	P Abs	Cmnts
ENDL Texas		DNV	
Exabyte Corp.	Joe Breher	P Yes	
FCI	Douglas Wagner	P Yes	
Fujitsu	Eugene Lew	P Yes	
General Dynamics	Tim Mackley	A Yes	
Genroco, Inc.	Donald Woelz	P Yes	
Hewlett Packard Co.		DNV	
Hitachi Cable Manchester	Zane Daggett	P Yes	
Honda Connectors	Thomas J. Kulesza	P Yes	
IBM / Tivoli Systems	George O. Penokie	P No	Cmnts
Intel Corp.	Cris Simpson	P Yes	
Iomega Corp.	Tim Bradshaw	P Yes	
KnowledgeTek, Inc.	Dennis Moore	P Yes	
LSI Logic Corp.	John Lohmeyer	P Yes	
Maxtor Corp.	Mark Evans	P Yes	
Microsoft Corp.	Emily Hill	A Abs	Cmnts
Molex Inc.	Jay Neer	P Yes	
Nishan Systems Inc.	Charles Monia	P Yes	
Ophidian Designs		DNV	
Panasonic Technologies, Inc	Terence J. Nelson	P Yes	
Philips Electronics/CD Edge	William P. McFerrin	P Yes	
QLogic Corp.	Skip Jones	P Yes	
Quantum Corp.	Patrick McGarrah	A Yes	
Seagate Technology	Gerald Houlder	P Yes	
Storage Technology Corp.	Erich Oetting	P Yes	
Sun Microsystems, Inc.	Kenneth Moe	P Yes	
Texas Instruments	Paul D. Aloisi	P YesC	Cmnts
Toshiba America Elec. Comp.		DNV	
Troika Networks, Inc.	Rick Casaly	A Yes	
TycoElectronics		DNV	
Woven Electronics		DNV	

Ballot totals:

35 Yes
1 No
4 Abstain
7 Organization(s) did not vote
47 Total voting organizations
8 Ballot(s) included comments

This 2/3rds majority ballot passed.

34 Yes is at least a majority of the membership [greater than 23] AND
34 Yes is at least 24 (2/3rds of those voting, excluding abstentions [35])

Key:

P Voter indicated he/she is principal member
A Voter indicated he/she is alternate member
O Voter indicated he/she is observer member
? Voter indicated he/she is not member or does not know status

YesC Yes with comments vote
 Abs Abstain vote
 DNV Organization did not vote
 Cmnts Comments were included with ballot
 NoCmnts No comments were included with a vote that requires comments
 DUP Duplicate ballot (last ballot received from org. is counted)
 PSWD The password was not correct (vote not counted)
 ORG? Organization is not voting member of T10 (vote not counted)

Comments attached to Abs ballot from Mr. Bill Galloway of BREA Technologies, Inc.:

I did not participate in any work on this document.

Comments attached to YesC ballot from Mr. Robert Snively of Brocade Comm. Systems, Inc.:

From: Bob Snively
 Brocade Communications
 408-487-8135
 rsnively@brocade.com

Date: July 5, 2001

Subject: Comments on SST, Revision 08B

This document lies outside the areas of primary interest of Brocade Communication Systems and therefore has not been completely reviewed. A partial review has identified the following comments. A more detailed review would focus on the mappings to ST and the error recovery procedures, but has not been done.

1) T10 editorial conventions required (editorial)

All sections:

Proper T10 formatting requires a series of appropriate editorial conventions to be followed. These include, but are not restricted to:

Correction of the word "which". In most cases, the word should either be deleted, replaced with that, or the sentence should be rewritten.

Hanging paragraphs should be removed. See 5.2 as an example.

2) Variable length and bi-directional CDBs (technical)

We chose to support these in FCP-2. Do we want to do so in SST?

Comments attached to YesC ballot from Mr. Robert C. Elliott of Compaq Computer Corp.:

CPQ 1 Section 5.3.5
 This section refers to COPY, which is obsolete. Upgrade this reference to EXTENDED COPY.

CPQ 2 Section 5.3.5

This section refers to a "64-bit field." This length restriction is present in all third-party commands (like EXTENDED COPY). Replace "specify a 64-bit field" with "specify a field".

(reference)

5.3.5 Third-party SCSI commands

Certain third-party SCSI commands and parameters specify a 64-bit field that is defined to access other SCSI devices addressable from that port. These commands include COPY, RESERVE, and several others.

The ST protocol does not specify a specific address format. However, ST is usually run on an LLP that does specify an address format. Therefore, the address formats for third-party SCSI commands in the SST protocol are a function of the LLP address format. Address formats are beyond the scope of this standard.

CPQ 3 Section 5.4,

In Table 2, Make LOGICAL UNIT RESET lowercase in the SST column to match the others.

CPQ 4 Global

Don't use TM as an acronym for "task management" since it more commonly means "trademark". There are only about 13 uses of it, so spelling out the phrase is not onerous.

CPQ 5 Section 2 and Global

Replace "(see ANSI X3.270)" with "(see SAM)" or "(see SAM-2)".

Replace "(see ANSI NCITS.337-2000)" with "(see ST)".

Remove the approved reference SCSI-2. It is not referenced anywhere.

CPQ 6 Global

All "hanging paragraphs" need to be removed to meet ISO style rules. Any section that has a subsection is not supposed to contain text itself. Change:

2 section name

< hanging paragraph text>

2.1 subsection A

to:

2 section name

2.1 overview (or introduction)

<hanging paragraph text>

2.2 subsection A

These sections are afflicted:

2, 3.1, 5.2, 5.3, 5.4, 5.4.1, 6.1, 6.2, 6.2.5, 6.3, 6.4, A, B

CPQ 7 Global

The PDF logical page number starts with page 2

Set logical page number 1 to match printed page 1 with the Document:Number Pages command in Acrobat.

PDF page 12 (11 of 51) has a printed page number of ii. It should be xii. The next page iii should be xiii. The next page is entirely blank, which may be a problem.

Printed page 1 lacks a page number.

Delete blank last page

CPQ 8 Preliminary pages (iii/iv/vi/etc)

Update George Penokie's information (now Tivoli).

Remove page iv (comments on rev 8b)

Change 2000 to 2001 in copyright notice on page vi

Remove NCITS member list

Update T10 member list

Add annexes to the Introduction page

Table of Contents references to page 19 are inconsistently formatted

CPQ 9 Section 5.3.1, 5.3.2, 5.3.3, 6.1

broken cross-references: "as described in 0"

CPQ 10 Section A.4

Cross references like "Table 1 lists" should be "Table A.1 lists"

CPQ 11 Sections 5.3.1, 5.3.2, 5.3.3
Text references introducing Figures 3, 4, and 5 are needed.

CPQ 12 Sections 6.1.1, 6.2, 6.2.6, 6.4, B
Figure 6 should be a Table
Figure 8 should be a Table
Figure 10 should be a Table. The Byte numbers don't line up with the contents.
The Bytes intended to be labeled 16-19 and 20-23 are really variable based on RSP_LEN. The caption uses a normal dash instead of an emdash like the other figures.
Figure 13 should be a Table.
Figures 6, 8, 10, 13 should probably be drawn with one byte per row so the byte order is clear.
Captions for figures B.1, B.2, B.3 don't have emdashes like the others.
Label the MSB and LSB of multibyte quantities where it matters (e.g. size fields, but not CDB field). Add those to the acronym list.
You may also want to convert figures 7, 9, and 11 to tables to use the same format.

CPQ 13 Sections 3.2, 5.4.1.1, 5.4.1.2, 5.4.1.3
Add these rules to 3.2 (take from SPI-4):
"An alphanumeric list (e.g., a,b,c or A,B,C) of items indicate the items in the list are unordered.
A numeric list (e.g., 1,2,3) of items indicate the items in the list are ordered (i.e., item 1 must occur or complete before item 2)."
and format the lists in 5.4.1.x accordingly.

There are quite a few lists introduced with dashes that should probably use a)
b) format.

CPQ 14 Sections 5.3.1, 5.3.4, 7.1
5.3.1 Change which to that: "operation which initiated the task"
5.3.4 "operation which signifies"
7.1 "remain outstanding which could" (twice)

CPQ 15 Global
SAM-2 dictates that "Each SCSI protocol specification shall describe a mechanism for Asynchronous Event Reporting." This is missing from SST.

CPQ 16 Global
Are any of the Disconnect-reconnect mode page parameters supported/required/prohibited for SST devices? Most protocol standards define that page, the Logical Unit control mode page, and the Port control mode page, even if they are not used.

CPQ 17 Sections 5.3.1, 5.3.2, 5.3.3, 6.3.6
5.3.1, 5.3.2, 5.3.3 Change "the SCSI REQUEST SENSE information" with "the SCSI sense data"
6.3.6 Replace "The SNS_INFO field contains the information specified by ANSI X3.270 for presentation by the REQUEST SENSE command" with "The SNS_INFO field contains the sense data specified by SAM-2"

CPQ 18 Annex B
In Figures B.1 and B.2, some of the text is truncated in the figures (e.g. "CTS Send" and "End")

CPQ 19 Section 3.1.17
add (ST) after "Scheduled Transfer"

CPQ 20 Section 6.1
In Table 3, change 0h to 0000h and 1h to 0001h since the field holding these values is 16 bits wide.

CPQ 21 Annex A
MB is defined as 10^6 . Earlier versions of SST defined it as 2^{20} . Is the current definition correct for Table A.3's STU Size maximum, block size maximum, and buffer size maximum rows?

The STU size minimum, block size minimum, and buffer size minimum rows should add units of "bytes".

Comments attached to Abs ballot from Mr. Peter Johansson of Congruent Software, Inc.:

My abstention is because of lack of technical expertise in the subject area.

Comments attached to Abs ballot from Mr. Robert H. Nixon of Emulex:

Emulex-001: Neither I nor others at my company are technically prepared to take a position on this question.

Comments attached to No ballot from Mr. George O. Penokie of IBM / Tivoli Systems:

Date: July 10, 2001
To: T10 Committee (SCSI)
From: George Penokie (IBM)
Subject: Comments on SST Letter Ballot
General

There following are comments.
Comment number: Company and person
E/T for Editorial/Technical
Physical Page
Location of comment on page
Comment/Recommendation

1: Tivoli comment from George Penokie
E
Page iii
Section 'Comments on Rev 06'
This entire section needs to be removed before this can be forwarded.

2: Tivoli comment from George Penokie
E
Page many
Section many
Unordered list should be a,b,c. Change all unordered lists in this standard to the following a,b,c format:
Text before list:
a) entry one;
b) entry two;
c) second to last; and/or
d) last one.

3: Tivoli comment from George Penokie
E
page 1
section 2.1
The should not be a reference to both SAM and SAM-2. You should only reference one and I suggest that be SAM-2.

4: Tivoli comment from George Penokie
E
Page 1
section 2

The text between section 2 and section 2.1 is a hanging section. This needs to be fixed here are anywhere else there is a hanging paragraph.

5: Tivoli comment from George Penokie

E

Page 1. There is no page 1 number at the bottom of the page.

6: Tivoli comment from George Penokie

E

Page 1-2

Section 2

The ISO references to standards should be used in all cases.

7: Tivoli comment from George Penokie

E

Page 2

section 3.1.6

The 'which' should be changed into a 'that'. The standard should be searched for 'which's' and, in most cases, those 'which's' should be changed to 'that's'.

8: Tivoli comment from George Penokie

E

Page 3

section 3.1.8

The 'note' needs to be listed as a separate paragraph with the note being numbered and the font changed to 9 point. This needs to be made so in all cases.

9: Tivoli comment from George Penokie

E

Page 3

Section 3.1.8

All references to SAM should be changed to SAM-2.

10: Tivoli comment from George Penokie

E

Page 3

Section 3.1.11

The e.g., should be in the form (e.g.,). This needs to be the case in all cases when examples are used.

11: Tivoli comment from George Penokie

E

Page 3

Section 3.1.13

The capitalization in this standard is excessive. In most cases the words that are capitalized should not be.

For example the term 'Data' in this section should not be capitalized. I recommend removed the capital letter from all words.

12: Tivoli comment from George Penokie

E

Page 3

Section 3.1.14

The term 'Op' is in quotes. The quotes need to be removed. All field names should be put into small caps to indicate a field name.

13: Tivoli comment from George Penokie.E

Page 3

Section 3.1.17

All references to standards in the body of the standard (beyond section 2) should be listed by name not number.

For example SAM-2, SPC-2.

14: Tivoli comment from George Penokie

T

Page 4

Section 3.1.21

The term 'end device' is not defined. This needs to be fixed.

15: Tivoli comment from George Penokie

E

Page 4

Section 3.1.19

The term 'etc' should never be used at the end of an e.g list.

Page 19

16: Tivoli comment from George Penokie

E

Page 5

Section 3.1.30

The term 'could' should not be used as it is a form of can. The statement should be change to 'A ULP may be implemented in hardware or software, or may be distributed between the two.'

17: Tivoli comment from George Penokie

E

Page 7

Section 4.1 - 1st paragraph

The statement 'SST layers only on ST.' in not a complete sentence and makes no sense. This needs to be fixed.

18: Tivoli comment from George Penokie

E

Page 8

Section 5.1

The '='s needs to be replaced with 'is set to'. This needs to be changed in most cases.

19: Tivoli comment from George Penokie

E

Page 8

Section 5.1 - 4th paragraph

The last sentence should be changed to 'ST Data Channel flag bits shall be set to reflect (?).' I don't know what the 'this' is referring to in this sentence.

20: Tivoli comment from George Penokie

E

Page 8

Section 5.1 - 5th paragraph. The sentence should be 'Instead, entire tasks are retried as described in 7.4.'

21: Tivoli comment from George Penokie

E

Page 8

Section 5.1 - last paragraph

The term 'big-endian ordering' is not defined anywhere in this document. This needs to be fixed or the sentence deleted.

22: Tivoli comment from George Penokie

E

Page 8

Section 5.2 (the hanging paragraph)

The note needs to be made into a note using the correct format for notes.

23: Tivoli comment from George Penokie

E

Page 9

Figure 2 and others

The italicized text needs to be change to non-italicized text.

24: Tivoli comment from George Penokie

E

Page 9

Section 5.2.1 - 1st paragraph

The term 'well known port' is not defined anywhere. This needs to be fixed.

25: Tivoli comment from George Penokie

E

Page 9

Section 5.2.1 - 2nd paragraph

The statement 'If the SSTVC Responder is willing to accept the SSTVC, it shall respond...' should be changed to 'If the SSTVC Responder supports SSTVC, it shall respond...'

26: Tivoli comment from George Penokie

E

Page 9

Section 5.2.1 - 4th paragraph

The statement 'If the SSTVC parameters are unacceptable to the SSTVC Responder,...' should be 'If the SSTVC parameters are not supported by the SSTVC Responder,...' There are other cases of the items 'un-acceptable' and 'acceptable' being used. These terms are unacceptable and need to be replaced with 'not supported by' and 'supported by' in most cases.

27: Tivoli comment from George Penokie

E

Page 10

Section 5.2.1

The term 'can' and 'cannot' need to be removed this standard in all cases. Start here.

28: Tivoli comment from George Penokie.E

Page 10

Section 5.2.2 - 1st sentence

The first sentence needs to be moved so it is right above the list.

29: Tivoli comment from George Penokie

E

Page 10

Section 5.2.2 - 1st paragraph

The sentence 'The exact duration of the timer is implementation specific.' should be 'The duration of the timer is not specified by this standard.'

30: Tivoli comment from George Penokie

E

Page 10

Section 5.3 - hanging section note. The note makes no sense. Are you trying to state:

'Note xx: Linked SCSI commands are processed serially.'

31: Tivoli comment from George Penokie

E

Page 11

Section 5.3 - 1st paragraph after note

The statement 'in the following clauses' is not a clear reference. At best you should point to the actual sub-clauses or at least change to 'following subclauses or this subclause.'.

32: Tivoli comment from George Penokie

T

Page 11

Section 5.3 - 2nd paragraph after note

The term 'will' needs to be removed from this standard in all cases. In this case the 'will' should be a 'shall'.

33: Tivoli comment from George Penokie

E

Page 11

E

Page 15

Table 2

The column heading should be changed from 'required' to 'mandatory'.

44: Tivoli comment from George Penokie

E

Page 15

Section 5.4.1 - 2nd paragraph

The statement '...and target are free to reuse the...' should be '...and target may reuse the...'.

45: Tivoli comment from George Penokie

E

Page 15

Section 5.4.1 - last paragraph

The term 'Generally' should be deleted as it contain no useful information.

46: Tivoli comment from George Penokie

E

Page 15 and 16

All the lists. This list numbering implies and unordered list with an ordered sublist for some of the unordered items. If that is what is intended then OK but I do not think so. If not then fix it using the standard convention for lists in SCSI standards.

47: Tivoli comment from George Penokie

E

Page 17

Figure 6

This figure is not a figure it is a table and should be labeled as such. Also the format is not consistent with that used in SCSI standards. This and all other tables need to be fixed to be consistent with the other SCSI standards. Note that the same format is now starting to be used in FC standards, specifically the latest version of FS.

48: Tivoli comment from George Penokie

E

Page 17

section 6.1.1.1

As stated before the '=' symbol should only be used in equations. In most cases it should be replaced with 'set to' or 'a value of'. This needs to be fixed throughout the standard.

49: Tivoli comment from George Penokie

T

Page 17

Figure 6

There is no indication as to the size of the fields listed in bytes 00-03. This needs to be fixed.

50: Tivoli comment from George Penokie

E

Page 17

Figure 6

All field names should be in small caps. This should be changed throughout the standard.

51: Tivoli comment from George Penokie

E. Page 17

Section 6.1.1.3 - 1st paragraph

The statement 'Note that' should be deleted.

52: Tivoli comment from George Penokie

E

Page 17

Section 6.1.1.4 - 1st paragraph

this standard.

72: Tivoli comment from George Penokie

E

Page 23

Section 6.34 - 3rd paragraph

The statement '...field in not valid...' should be '...field shall be ignored...'.
'

73: Tivoli comment from George Penokie

E

Page 24

table 6

There is no reference to this table. This needs to be fixed.

74: Tivoli comment from George Penokie

E

Page 25

Section 7.1 - 1st paragraph.

The statement 'The SST task timeout, the only timeout, is used...' makes no sense. What is ',the only time-out, ' supposed to mean?

75: Tivoli comment from George Penokie

E

Page 25

section 7.1- 4th paragraph

The statement '...cases are cleaned up...' should be '...cases are removed...'.
'

76: Tivoli comment from George Penokie

E

Page 25

Section 7.1 - last paragraph

The statement 'If an implementation desires more rapid cleanup than is...' should be 'If an implementation requires a more rapid removal than is...'.
'

77: Tivoli comment from George Penokie

E

Page 25

Section 7.2 - 1st paragraph

The text in ()s should start with either an e.g. or an i.e. depending when this is a complete list or an example of list.

78: Tivoli comment from George Penokie

E

Page 25

Section 7.2 - 2nd paragraph

The statement ', i.e.512 bytes.' should be '(i.e., 512 bytes)'.
'

79: Tivoli comment from George Penokie

E

Page 26

Section 7.4 - 1st paragraph

It is not clear what a 'device operation' is. This needs to be fixed.

80: Tivoli comment from George Penokie

E

Page 26

Section 7.4

There are cans and wills that need to be fixed in this section.

81: Tivoli comment from George Penokie

E

Page 26

Section 7.4 2nd paragraph after the list.

The term 'immediately' is not quantify able therefore should be removed.

Comments attached to Abs ballot from Ms. Emily Hill of
Microsoft Corp.:

Not something directly affecting our products or areas of concern...

Comments attached to YesC ballot from Mr. Paul D. Aloisi of
Texas Instruments:

Figures B1 and B2 - some of the blocks cut off the bottom of the lettering.

***** End of Ballot Report *****