Minutes of the SBP-3 Working Group meeting, January 21-22, 2003
Outrigger Wailea Hotel, Hawaii

Attendees:

Eric Anderson Apple ewa@apple.com
Andy Green Oxford Semiconductor andy.green@oxsemi.com
Peter Johansson Congruent Software Pjohansson@ACM.org
Bill Russell Canon bill.russell@cis.canon.com

The following agenda was presented by Johansson. In the minutes that follow, the start of discussion of items listed below is denoted by the index number listed within square brackets, such as [4.1]. Note that these references do not always appear in order, and may not signify the conclusion of discussion of a previous agenda item.

1. Introductions and procedures
   1.1 T10 Membership and voting
   1.2 Document naming conventions
   1.3 Two-week rule
   1.4 Meeting fees
   1.5 Approval of prior minutes (02-480r0)
2. Call for patents
3. Informal liaison
   3.1 IEEE P1394.1 [Johansson]
   3.2 IEEE P1394.3 [Johansson]
   3.3 PTP on SBP [Anderson]
4. Prior action items
   4.1 Request Apple comment on 02-281r0 [Anderson]
   4.2 Request Microsoft comment on 02-281r0 [Johansson]
   4.3 Configuration ROM iPCR/oPCR proposal [Johansson]
5. Review of changes in working draft
6. Review reflector traffic
7. Old business
   7.1 Editorial review of draft (page turner)
8. New business
   8.1 Configuration ROM iPCR/oPCR proposal [Johansson]
8.2 Well-known LUNs for hybrid AV/C — RBC disks [Green]
8.3 FAST_START page tables for bi-directional ORBs
9. Meeting schedule
10. Review of action items
11. Adjournment

[1] Johansson called the meeting to order and updated the agenda, as reflected above.

[1.3] Johansson briefly reviewed the two-week rule, explaining that it did not prevent the discussion of documents posted less than two weeks before a meeting.

[1.5] Anderson noted that he had previously distributed draft minutes from November 5-6 (Huntington Beach). The group approved the minutes from that meeting.

ftp://ftp.t10.org/t10/document.02/02-480r0.pdf

[1.1] [2] Johansson reviewed general T10 policies and procedures. In general, attendance and participation at T10 ad hoc meetings (such as this one) is open to both visitors and T10 members. When formal votes are taken, either in an ad hoc meeting or in the T10 plenary, one vote is permitted each organization, to be cast by its principal representative or designated alternative. A two-week rule is in effect: No matter may be voted on unless notice was given at least two weeks prior. Documents to be voted on must have been posted two weeks prior to the vote. The two-week rule can be waived if nobody objects. Announcements of new documents and meetings must be posted to the T10 email reflector; all other business can be conducted on the working group reflector.

The following paragraph about ANSI/T10 patent policy is copied from past T10 Plenary minutes:


[3.1] Johansson reported that the IEEE 1394.1 BRC had no meetings since the previously reported meeting October 28-30 in New York, and no changes have been incorporated into the draft. The next BRC meeting is not yet scheduled.
3.2] Johansson noted that Alan Berkema, acting chair of IEEE 1394.3, had indicated that a recirculation ballot could be conducted soon.

3.3] Anderson reported that the 1394 Trade Association and the I3A had agreed to a joint work project to specify a transport for the Picture Transport Protocol (PTP) over SBP. Anderson noted he gave an update at the TA the previous week, and the work was ongoing, but not yet in the ballot process.

4.1] Anderson reported this action item was not complete.

4.2] Johansson reported that he had requested comment from Microsoft on 281-r0, but had not received any.

4.3] Johansson reported he had prepared a Configuration ROM iPCR/oPCR proposal for discussion as new business [8.1]

5] Johansson led a review of changes in SBP-3 draft "2c":


Reviewing page 26, Johansson noted that isochronous transport could be used even when the isochronous bit was zero in each ORB, by using an isochronous command set, and said he would look for a suitable place to remind the reader of this.

On page 47, in the indented text, Anderson asked if the SPLIT_TIMEOUT should start from the transmission of a 1394 acknowledgment, rather than the first response subaction. Johansson agreed to clean up the text here and in the related 1394 TA technical bulletin.

Text regarding secondary task sets was deleted from 10.5 as a continuation of cleanup from the previous meeting.

6] Johansson led a brief review of SBP-3 reflector email traffic since July 17.

In response to an email question, the group agreed that section 7.7.9 could explain or refer to an explanation elsewhere that ORB allocation and fetching must always be based on the maximum OBR size expressed in the 1394 configuration ROM, which would account for any possible bidirectional ORBs.

A related question arose: Can the Initiator tell if bidirectional ORBs are supported? The maximum ORB size field indicates both the space for second data descriptor and for variable sized CDBs. Answer: No, you just have to know based on the command set, and if you use uni-directional ORBs when bidirectional ORBs are supported, you will have 12 extra bytes available for CDBs.
Johansson noted that if a command set supports bidirectional ORBs, but all such commands are optional, a target should reject any unsupported such optional command as an unsupported command, rather than on the grounds of not implementing bidirectional ORBs. Targets will be required to understand bidirectional ORBs well enough to allow the command to be declined by the command engine, even if the Target does not implement all the mechanisms required to execute a bidirectional ORB.

The group determined that Fast Start did adequately describe what to do with bidirectional ORBs, because it required a fixed-size ORB structure. However, the email question continued, asking [8.3] what to do with page tables in a fast start packet for a bidirectional ORB, and the group agreed that the draft did not clearly answer this.

Anderson suggested adding a short paragraph before the final paragraph of 6.5.7 to explain that if, and only if, the entire page table for buffer [0] of a bidirectional ORB was included in a fast start packet, then one or more page table entries for buffer [1] could optionally be appended to complete the fast start packet, subject to the packet size limitations stated elsewhere.

[8.1] Johansson presented a Configuration ROM iPCR/oPCR proposal for inclusion in the draft. The group agreed to incorporate the text with minor modification into the next draft of SBP. The group reviewed email from Fairman and elected not to make any changes to the proposal, feeling that ISO/IEC 6-1883 would provide ample guidance.


[8.2] The group reviewed recent T-10 work on well known LUNs to see if it applied to SBP-3, but made no changes to the draft.

[7.1] The group performed a "page turner" review of the draft “2c” document and made numerous small clarifications, starting in section 5.1.3. Significant changes are mentioned here.

Anderson suggested adding text just before 6.1 to explain that when a write to a register or field is specified to be ignored, that this means the write completes without error (e.g. 1394 ack_complete or resp_complete), but has no effect on the register or field. The suggestion came from the observation that a write to the doorbell in the dead state was required to be ignored, which could be interpreted as anything from no_ack to ack_type_error to ack_complete.

Green observed that the HEARTBEAT_MONITOR should only exist in primary logins, not in secondary task sets.
Anderson asked if UNSOLICITED_STATUS_ENABLE should exist independently for secondary task sets, and suggested that it should, since the cost was low and there was no certainty it would not be needed. Johansson agreed to minor changes to clarify this point.

In section 7.1 the group discussed the five-second requirement to make the 1394 configuration ROM available after a power-on reset and discussed various strategies, but reached no conclusion.

Anderson observed that the SBP annexes document a connection between 1394 configuration ROM entries such as Vendor ID and an immediately-following text leaf with associated text such as the vendor name. Anderson could not cite any documentation outside of SBP that explained or formalized such a spatial relationship in 1394 configuration ROMs, and suggested that it be added in 1394r if Johansson was able to do so.

The group agreed that chapter 9 needed a new section to describe Interim Status.

[9] The next scheduled meeting is March 11-12 in Dallas with T-10.

[10] Johansson briefly reviewed the newly assigned action items.


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General information and document index

The SBP-3 email reflector SBP3@isg.apple.com can be accessed as follows:

Subscribing:
email requests@isg.apple.com w/subject "subscribe sbp3"

Help?:
email requests@isg.apple.com w/subject "help"

An automated system had been created for the allocation of T10 document numbers, and the subsequent submission of documents for posting:

http://www.t10.org/members/ad.htm

The following documents have been posted pertaining to SBP-3:
00-328 Eric Anderson
Fast Start proposal (PowerPoint slides)
ftp://ftp.t10.org/t10/document.00/00-328r0.pdf

00-371 Peter Johansson
Minutes of SBP-3 Study Group September 19, 2000
ftp://ftp.t10.org/t10/document.00/00-371r0.pdf

00-388 Peter Johansson
SBP-3 Project Proposal
ftp://ftp.t10.org/t10/document.00/00-388r0.pdf

01-057 Eric Anderson
Fast Start Proposal
ftp://ftp.t10.org/t10/document.01/01-057r0.pdf

01-060 Eric Anderson
Minutes of SBP-3 Working Group January 24-25, 2001
ftp://ftp.t10.org/t10/document.01/01-060r0.pdf

01-067 Lance Flake
RBC Access For AV/C Data Interchange
ftp://ftp.t10.org/t10/document.01/01-067r0.pdf

01-069 Steve Powers
Surprise Removal of 1394 Storage Devices
ftp://ftp.t10.org/t10/document.01/01-069r0.pdf

01-070 Peter Johansson
Bridge-aware targets and node handles
ftp://ftp.t10.org/t10/document.01/01-070r0.pdf

01-101 Eric Anderson
Minutes of SBP-3 Working Group March 6-7, 2001
ftp://ftp.t10.org/t10/document.01/01-101r0.pdf

01-102 Scott Smyers
Proposal for modifications to SBP3 and RBC
ftp://ftp.t10.org/t10/document.01/01-102r0.pdf

01-103 Firooz Farhoomand
Using SBP-3 for DVD playback
ftp://ftp.t10.org/t10/document.01/01-103r0.pdf

01-137 Peter Johansson
Stream command block ORB
ftp://ftp.t10.org/t10/document.01/01-137r0.pdf

01-138 Peter Johansson
Bi-directional ORBs (PowerPoint slides)
ftp://ftp.t10.org/t10/document.01/01-138r0.pdf

01-139 Eric Anderson
Minutes of SBP-3 Working Group April 26-27, 2001
ftp://ftp.t10.org/t10/document.01/01-139r0.pdf

01-179 Andy Green
Proposal to modify isochronous recording format
ftp://ftp.t10.org/t10/document.01/01-179r0.pdf

01-180 Peter Johansson
RBC-2 commands for extent management

01-187 Eric Anderson
Minutes of SBP-3 Working Group June 5-6, 2001
ftp://ftp.t10.org/t10/document.01/01-187r0.pdf

01-200 Peter Johansson
Distributed Buffers
ftp://ftp.t10.org/t10/document.01/01-200r0.pdf

01-222 Peter Johansson
Simplified Isochronous
ftp://ftp.t10.org/t10/document.01/01-222r0.pdf

01-223 Eric Anderson
Minutes of SBP-3 Working Group July 17-18, 2001
ftp://ftp.t10.org/t10/document.01/01-223r0.pdf

01-248 Peter Johansson
MP-friendly Fast-Start
ftp://ftp.t10.org/t10/document.02/02-208r0.pdf

02-281 Peter Johansson
Prototype AVD Commands

02-282 Eric Anderson
Minutes of SBP-3 Working Group July 16-17, 2002
ftp://ftp.t10.org/t10/document.02/02-282r0.pdf

02-480 Eric Anderson
Minutes of SBP-3 Working Group November 5-6, 2002
ftp://ftp.t10.org/t10/document.02/02-480r0.pdf

03-009 Peter Johansson
Configuration ROM iPCR/oPCR proposal
ftp://ftp.t10.org/t10/document.03/03-009r0.pdf

03-070 Eric Anderson
ftp://ftp.t10.org/t10/document.03/03-070r0.pdf

Latest draft SBP-3 document:


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