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

Minutes of the SBP-3 Working Group meeting, November 5-6, 2002
Hilton Waterfront Hotel, Huntington Beach

Attendees:

Eric Anderson	Apple	ewa@apple.com
Andy Green	Oxford Semiconductor	andy.green@oxsemi.com
Peter Johansson	Congruent Software	Pjohansson@ACM.org

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 (02-282r0)
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 Review draft in re bridge-aware login when no bridges are present [Fuller]
 - 4.2 Request Apple comment on 02-281r0 [Anderson]
 - 4.3 Request Microsoft comment on 02-281r0 [Johansson]
5. Review of changes in working draft
6. Review reflector traffic
7. Old business
 - 7.1 Bare-bones isochronous [Johansson]
8. New business
 - 8.1 Review draft in re bridge-aware login when no bridges are present

- 8.2 Retry strategies [1394 TA Technical Bulletin]
- 8.3 Editorial review of draft (page turner)
- 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 July 16-17 (Colorado Springs). The group approved the minutes from that meeting.

<ftp://ftp.t10.org/t10/document.02/02-282r0.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:

A document is available from ANSI, "Procedures for the Development and Coordination of American National Standards", at no charge. This document is also on the web at http://www.ncits.org/help/ansi_sdo.html. Section 1.2.11 contains the ANSI patent policy. Amy Marasco manages patent issues for ANSI and can be contacted at amarasco@ansi.org or 212-642-4954. Gene Milligan prepared a useful "Handy dandy Technical Committee's Patents Guide", which is available at <ftp://ftp.t10.org/t10/document.99/99-291r0.pdf>.

[3.1] Johansson reported that the IEEE 1394.1 BRC had a very productive meeting October 28-30 in New York. Johansson said that the group appeared to have resolved all open issues, but extensive editing would still be required in order to incorporate the changes. Johansson predicted completion (and

recirculation) in one or at most two more meetings. Johansson also noted that the group planned to specify enhancements to output plug control registers to permit the use of speed codes indicating s800 and higher speeds.

[3.2] Johansson noted that Alan Berkema, acting chair of IEEE 1394.3 had, in principle, resolved all unresolved comments. Johansson anticipated that recirculation could be performed 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 that his presentation would be uploaded to the 1394 TA and I3A/IT-10 web sites later in the week, and welcomed feedback.

[4.1] Johansson noted that Fuller was not present and suggested the group conduct a review of bridge-aware login as new business. This became [8.1].

[4.2] [4.3] Action items for comment on 02-281r0 were carried over.

Action: Anderson to review 02-281r0 with Apple and provide comment.

Action: Johansson to request similar consideration from Microsoft.

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

<ftp://ftp.t10.org/t10/drafts/sbp3/sbp3r02b.pdf>

In section 5.1.2 the group discussed at length the wording regarding the isochronous bit in an ORB. The existing wording was agreed to be somewhat confusing. Johansson agreed to reword the text.

In 5.1.3.3, Green suggested that task set IDs should be explicitly required to be unique within a Target. Everyone agreed to add this requirement.

Anderson related at least two instances of SBP-2 devices that ignored the page-table present bit and attempted to transfer data at the page table address for auxiliary commands, because the device implementer evidently did not anticipate that a page table would be used for such as small data transfer. Johansson offered to add advisory text if Anderson provided some.

After extensive study, the first note in section 8.2.1 was agreed to be correct, yet very difficult to understand. Johansson improved the text by rearranging it.

The group revisited the recently-added text in 8.3.3 requiring a GUID confirmation after self-ID analysis, and the reasoning for this requirement, but made no changes.

Anderson and Johansson made minor wording changes to 9.1.5 in the hope of avoiding confusion.

Anderson questioned the change in the fifth paragraph of 10.5, asking if an Initiator that had requested a bridge-aware login would be surprised to find that the Target had ignored a net update because both were on the same bus. Johansson observed that the preceding paragraph was also not entirely correct because of the possibility that the bus reset it discussed could have been caused by a net update. Johansson added text to clarify these points.

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

The group reviewed an email discussion triggered by the group's previous consideration of busy retry and the BUSY TIMEOUT register. The group decided to review the technical bulletin that the 1394 TA Architecture working group was preparing on this topic to see how well it applied to SBP. This became [8.2].

The group reviewed several letters regarding confusion over the use of 1394 transaction code "E" for internal (on-media) representation of isochronous data, and all present agreed that a packet with such a transaction code was not specified to appear on the 1394 bus.

[8.1] The group reviewed section 8.2.1 but found no problems that would happen in the absence of a bridge. Green noted that in the absence of any bridge, a Target could not receive a login with a global node ID as its source ID. The action item previously given to Fuller was considered to be complete.

[8.2] The group reviewed 1394 TA TB2002002 and decided to incorporate parts of it, with changes, directly into SBP-3, rather than waiting to reference the future TA document. Anderson noted a previous suggestion that the BUSY_TIMEOUT register, though deprecated, should continue to accept read and write requests, to minimize the chance of confusing a legacy Initiator: Read requests could return a fixed value that most closely represents the device's behaviors, while write requests would be ignored but completed without error (ack_complete or resp_complete). Johansson said he would add the related parts to a new section 6.3.

[7.1] Johansson suggested that the addition of Config ROM entries to indicate the presence of input and/or output plug control registers could make the existing

SBP-3 isochronous mechanisms complete enough for simple use, while still permitting more complex control through command-set-specific mechanisms.

Johansson added a Fast Start key to the sample Configuration ROM for a SCSI Target in section F.2.

[8.3] The group performed a "page turner" review of the document and made numerous small clarifications. Significant changes are mentioned here.

Anderson observed that section 6 made no mention of 1394.1 bridge-awareness registers that a Target might require. Johansson agreed to study adding appropriate content to 6.1 or 6.2.

The group found various confusion in section 5.1.2 regarding ORB fields that describe data transfer (such as direction) when isochronous transfer was specified, especially when both isochronous and asynchronous transfer were specified. Green observed that the dual-buffer ORB did not have an isochronous bit and asked if it should have one, or perhaps even two, and could optionally be used as a better way to express an ORB with both isochronous and asynchronous transfer. Everyone agreed to this change.

The group discussed the unnumbered figure in section 5.1.2 showing the possible combination of in and out directional bits in a dual-buffer ORB, and reworded the figure to make it more clear.

The group concluded the page-turner work at the end of section 5.1.2 (r02b).

[9] The next scheduled meeting is January 20-21, following the January 2003 1394 TA meeting in Wailea, HI.

[10] Johansson briefly reviewed the newly assigned action items. There was one, for Johansson to incorporate plug control register information into the configuration ROM.

[11] Meeting adjourned.

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>
<ftp://ftp.t10.org/t10/document.01/01-067r1.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
<ftp://ftp.t10.org/t10/document.01/01-180r1.pdf>

- 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.01/01-248r1.pdf>

- 01-265 Eric Anderson
Minutes of SBP-3 Working Group August 22-23, 2001
<ftp://ftp.t10.org/t10/document.01/01-265r0.pdf>

- 01-287 Peter Johansson
Bare-bones Isochronous
<ftp://ftp.t10.org/t10/document.01/01-287r1.pdf>

- 01-304 John Fuller
SBP3 Changes
<ftp://ftp.t10.org/t10/document.01/01-304r0.pdf>

- 01-318 Rob Elliott
Elimination of SCSI-2 from SAM-2 SPC-3
<ftp://ftp.t10.org/t10/document.01/01-318r0.pdf>

- 01-330 Peter Johansson
Minutes of SBP-3 Working Group October 3-4, 2001
<ftp://ftp.t10.org/t10/document.01/01-330r0.pdf>

- 01-331 Eric Anderson
Minutes of SBP-3 Working Group November 6-7, 2001
<ftp://ftp.t10.org/t10/document.01/01-331r0.pdf>

- 01-332 Scott Smyers
Isochronous SBP-3
<ftp://ftp.t10.org/t10/document.01/01-332r0.pdf>

- 02-069 Peter Johansson
Bridge-aware SBP-3 target operations
<ftp://ftp.t10.org/t10/document.02/02-069r2.pdf>
- 02-075 Peter Johansson
EUI-48 software interface ID VPD page
<ftp://ftp.t10.org/t10/document.02/02-075r1.pdf>
- 02-206 Eric Anderson
Minutes of SBP-3 Working Group January 21-22, 2002
<ftp://ftp.t10.org/t10/document.02/02-206r0.pdf>
- 02-207 Eric Anderson
Minutes of SBP-3 Working Group March 12-13, 2002
<ftp://ftp.t10.org/t10/document.02/02-207r0.pdf>
- 02-208 Eric Anderson
Minutes of SBP-3 Working Group May 29-30, 2002
<ftp://ftp.t10.org/t10/document.02/02-208r0.pdf>
- 02-281 Peter Johansson
Prototype AVD Commands
<ftp://ftp.t10.org/t10/document.02/02-281r1.pdf>
- 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>

Latest draft SBP-3 document:

<ftp://ftp.t10.org/t10/drafts/sbp3/sbp3r02b.pdf>

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