Accredited Standards Committee*
InterNational Committee for Information Technology Standards (INCITS)

Doc. No.: T10/02-343r0

Date: September 16, 2002
Reply to: John Lohmeyer

To: T10 Membership
From: Ralph Weber and John Lohmeyer
Subject: SCSI Commands, Architecture, & Protocol Working Group Meeting -- September 11, 2002
Minneapolis, MN

Agenda

1. Opening Remarks
2. Approval of Agenda
3. Attendance and Membership
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    4.2 Response to T10 Letter Ballot comments on SAM-2 (02-155) [Weber]
    4.3 SAM-3 SPC-3 SBC-2 SSC-2 Clearing effects of I_T nexus loss (02-232) [Elliott & Chadalapaka]
    4.4 SAM-3: LUN value meaning unspecified LU (02-321) [Nixon]
    4.5 SAM-3 Names and identifiers for iSCSI revision 16 (02-348) [Krueger and Elliott]
5. Command Set Topics
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    5.2 SES-2 SPC-3 Vendor-specific diagnostic pages (02-189) [Spicher & Elliott]
    5.3 WWNs for WLUNs (02-254) [Penokie]
    5.4 Ordered SCSI proposal (02-283) [Peterson]
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    5.7 Change ASC for truncated parameter in SPC-3 for LOG SELECT command (02-308) [Entzel]
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    5.10 Media Serial Number [Hill]
6. SCSI Protocol Topics
    6.1 FCP-2: Issues To Resolve (02-267) [Peterson]
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7. Old Business
    7.1 Project Proposal for AV Direct-access Commands (AVD) (01-337) [Johansson]
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    8.1 Delivery Results for SAM-3 () [Evans]
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10. Review of Recommendations to the Plenary
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12. Adjournment

Results of Meeting

1.   Opening Remarks

John Lohmeyer, the T10 Chair, called the meeting to order at 9:00 a.m., Wednesday September 11, 2002. He thanked Dave Peterson of Cisco Systems for hosting the meeting.

As is customary, the people attending introduced themselves and a copy of the attendance list was circulated.

2.   Approval of Agenda

The draft agenda was approved with the following changes:

4.5   SAM-3 Names and identifiers for iSCSI revision 16 (02-348) [Krueger and Elliott]
5.9   Report Supported Task Management Functions (02-346) [Novak]
5.10   Media Serial Number [Hill]

The following agenda items were added/revised during the course of the meeting:

6.3   SRP-2 Topics [Simpson]
8.1   Delivery Results for SAM-3 () [Evans]

3.   Attendance and Membership

Attendance at working group meetings does not count toward minimum attendance requirements for T10 membership. Working group meetings are open to any person or organization directly and materially affected by T10's scope of work. The following people attended the meeting:

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          Name          S       Organization        Electronic Mail Address
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Mr. Ron Roberts        P  Adaptec, Inc.            Ron_Roberts@adaptec.com
Dr. Claudio DeSanti    P  Andiamo Systems, Inc.    cds@andiamo.com
Mr. Brian Forbes       P  Brocade Comm. Systems,   bforbes@brocade.com
                          Inc.
Mr. Ralph O. Weber     P  ENDL Texas               roweber@acm.org
Mr. Mike Fitzpatrick   P  Fujitsu                  mfitzpatrick@fcpa.
                                                   fujitsu.com
Mr. Rob Elliott        P  Hewlett Packard Co.      Elliott@hp.com
Mr. Michael Banther    A# Hewlett Packard Co.      michael_banther@hp.com
Mr. George O. Penokie  P  IBM / Tivoli Systems     gop@us.ibm.com
Mr. Cris Simpson       P  Intel Corp.              cris.simpson@intel.com
Mr. Dennis Moore       P  KnowledgeTek, Inc.       dmoore@ix.netcom.com
Mr. John Lohmeyer      P  LSI Logic Corp.          lohmeyer@t10.org
Mr. Mark Evans         P  Maxtor Corp.             mark_evans@maxtor.com
Mr. Rob Haydt          A  Microsoft Corp.          robhay@microsoft.com
Mr. Charles Monia      P  Nishan Systems Inc.      cmonia@nishansystems.com
Mr. Charles Binford    P  Pirus Networks           charles.binford@pirus.com
Mr. Paul Entzel        P  Quantum Corp.            paul.entzel@quantum.com
Mr. Gerald Houlder     P  Seagate Technology       gerry_houlder@seagate.com
Mr. Erich Oetting      P  Storage Technology Corp. erich_oetting@stortek.com
Mr. Vit Novak          P  Sun Microsystems, Inc.   vit.novak@sun.com
Mr. Paul D. Aloisi     P  Texas Instruments        Paul_Aloisi@ti.com
Mr. Roger Cummings     P  Veritas Software         roger.cummings@veritas.
                                                   com
Mr. Kenneth Hirata     P  Vixel Corp.              Ken.Hirata@Vixel.com


22 People Present

Status Key:  P   -  Principal
             A,A# -  Alternate
             AV  -  Advisory Member
             L   -  Liaison
             V   -  Visitor
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4. SCSI Architecture Model Topics

4.1 SAM-3 Asynchronous event reporting RPC (02-071) [Elliott]

Rob Elliott requested that discussion of this topic be deferred to the next meeting.

4.2 Response to T10 Letter Ballot comments on SAM-2 (02-155) [Weber]

Ralph Weber reviewed the errors discovered in the SAM-2 letter ballot comments resolution (02-155r5) and explained the changes needed in the resolution. The group suggested improvements in the changes and Ralph agreed to prepare 02-155r6.

Ralph asked the group if there was an interest in changing the transport protocol support requirement for asynchronous event reporting from a 'shall' to a 'should' in SAM-2 in keeping with the changes already approved for SAM-3. The group supported adding such a change to the letter ballot comments resolution. Ralph agreed to add that change to 02-155r6.

Ralph asked the group if it would be appropriate to include the iSCSI name changes approved for SAM-3 in 02-348r0 in the SAM-2 letter ballot comments resolution and the group recommended the addition because it

served to make the information in SAM-2 Annex A more correct. Ralph agreed to add incorporation of 02-348r0 to the changes described in 02-155r6.

Ralph Weber moved that 020155r6 (r5 as revised) be recommended to T10 as the letter ballot comments resolution for SAM-2. George Penokie seconded the motion. In the absence of any objections, the motion passed unanimously.

Ralph Weber presented SAM-2 revision 23u to the group and conducted a review of the changes made in response to letter ballot comment Maxtor 2, see 02-155r6 for details regarding Maxtor comment. Ralph noted that the comment asked the editor to modernize every usage of 'device' (usually should be 'SCSI device'), 'initiator' (should be 'application client', 'SCSI initiator device', or 'SCSI initiator device'), and 'target' (should be 'SCSI target device' or 'SCSI target device').

The group called attention to SAM-2 r23u instances where changes other than those made by the editor were needed and Ralph agreed to revise the response to comment Maxtor 2 accordingly. In the clause describing how tasks may be aborted text that describes the PREEMPT AND ABORT service action, editorial changes were needed to clarify the intent. The group agreed on new wording for incorporation in the next SAM-2 revision.

Ralph agreed to prepare SAM-2 revision 23v showing the 02-155r6 changes with change bars showing the differences from revision 23. Ralph agreed to prepare SAM-2 revision 24 that would be identical to revision 23v except that the change bars would be removed. Ralph noted that SAM-2 revision 24 would be the dpANS containing all letter ballot resolutions, suitable for forwarding to first public review.

4.3 SAM-3 SPC-3 SBC-2 SSC-2 Clearing effects of I_T nexus loss (02-232) [Elliott & Chadalapaka]

Rob Elliott presented 02-232r2, the latest revision of the "clearing effects" proposal, noting that the only changes were those requested by the previous meeting and that the proposal had been on the T10 web site for two months.

Rob Elliott moved that 02-232r2 be recommended for inclusion in SAM-3, SPC-3, and SBC-2. George Penokie seconded the motion. In responses to questions from Charles Binford, the group discussed the history of the proposal. In the absence of any objections, the motion passed unanimously.

4.4 SAM-3: LUN value meaning unspecified LU (02-321) [Nixon]

George Penokie presented a proposal to define a new extended logical unit addressing format (02-321r0). The group discussed the usefulness of the logical unit number constructed by the proposal.

George Penokie moved that 02-321r0 be recommended for inclusion in SAM-3. Roger Cummings seconded the motion. In the absence of any objections, the motion passed unanimously.

4.5 SAM-3 Names and identifiers for iSCSI revision 16 (02-348) [Krueger and Elliott]

On behalf of Marjorie Krueger, Rob Elliott presented a proposal to revise the iSCSI name information in SAM-3 (02-348r0) to make it consistent with iSCSI revision 16.

Rob Elliott moved that 02-348r0 be recommended for inclusion in SAM-3. Ralph Weber seconded the motion. In the absence of any objections, the motion passed unanimously.

5.   Command Set Topics

5.1 Persistent Reserve Out Functionality for Reserve/Release Replacement (02-141) [Peterson]

Dave Peterson asked that discussion of this topic be deferred to the next meeting.

5.2 SES-2 SPC-3 Vendor-specific diagnostic pages (02-189) [Spicher & Elliott]

Rob Elliott presented a proposal to add vendor specific diagnostic pages for SES-2 (02-189r1). No concerns were raised. Rob Elliott moved that 02-189r1 be recommended for inclusion in SPC-3. Mark Evans seconded the motion. In the absence of any objections, the motion passed unanimously.

5.3 WWNs for WLUNs (02-254) [Penokie]

George Penokie presented a proposal to require that the name identifier for the SCSI device that is returned in INQUIRY commands for the Device Identification VPD page also be used for its well known logical units (02-254r2). Concerns were raised about knowing which protocol the identifier applies to and George agreed to revise the proposal to include the protocol identifier value for consideration at the next meeting.

5.4 Ordered SCSI proposal (02-283) [Peterson]

Dave Peterson asked that discussion of this topic be deferred to the next meeting.

5.5 SPC-3: Inquiry Command Parameter Length Increase (02-303) [Penokie]

George Penokie presented a proposal to increase the parameter data length in INQUIRY commands to two bytes and the Device Identifier page length to two bytes (02-303r0). The group requested that identifier lengths within the Device Identification VPD page be limited to 255 bytes and George agreed to modify the proposal.

George Penokie moved that 02-303r1 (r0 as revised) be recommended for inclusion in SPC-3. Erich Oetting seconded the motion. In the absence of any objections, the motion passed unanimously.

5.6 Allowing TUR through Persistent Reservation (02-304) [Penokie]

George Penokie presented a proposal to allow TEST UNIT READY in the presence of persistent reservations (02-304r0). Roger Cummings spoke in favor of the change. Rob Haydt requested that the change be approved by the November T10 plenary, instead of this month.

George Penokie moved that 02-304r0 be recommended for inclusion in SPC-3 with consideration being deferred to the November T10 plenary. Roger Cummings seconded the motion. In the absence of any objections, the motion passed unanimously.

5.7 Change ASC for truncated parameter in SPC-3 for LOG SELECT command (02-308) [Entzel]

Paul Entzel presented a proposal to change the additional sense code reported for LOG SELECT commands when the parameter length field causes truncation of a parameter (02-308r0). Concerns were raised about making devices compliant with previous versions of SPC non-compliant with SPC-3 and Paul agreed to revise the proposal to recommend the new additional sense code (PARAMETER LIST LENGTH ERROR) while allowing the old one (INVALID FIELD IN CDB), as requested by the group.

Paul Entzel moved that 02-308r1 (r0 as revised) be recommended for inclusion in SPC-3. Ralph Weber seconded the motion. In the absence of any objections, the motion passed unanimously.

5.8 REPORT LUNS Command Interpretation (02-345) [Novak]

Vit Novak presented a request for clarifications on the REPORT LUNS command behavior (02-345r0). The group stated that LUN 0 is always a member of the logical unit inventory even when there is no physical LUN 0 device present. The group stated that there are no requirements on the contents of the device type field when the peripheral qualifier is 001b. The group stated that requirements for configurable devices (e.g., RAID devices) would be

found in SCC-2 not SPC-3 and that SPC-3 allows a great degree of latitude in details of how configurable devices are identified in REPORT LUNS and INQUIRY parameter data.

5.9   Report Supported Task Management Functions (02-346) [Novak]

Vit Novak presented a proposal to add a command that reports supported task management functions (02-346r0). Vit described the command as mandatory. Mark Evans asked that it be optional and Vit agreed to revise the proposal.

Vit Novak moved that 02-346r1 (r0 as revised) be recommended for inclusion in SPC-3. Mark Evans seconded the motion. The motion passed on a vote of 16:2:2.

5.10 Media Serial Number [Hill]

Emily Hill reviewed the history of the media serial number issue (no proposal uploaded), presenting all the past choices and arguments against them. The group offered suggestions on how to structure a proposal that addresses all outstanding issues on the topic and Emily agreed to prepare a detailed proposal for consideration at the next meeting.

6.   SCSI Protocol Topics

6.1   FCP-2: Issues To Resolve (02-267) [Peterson]

The group received a short report on the activities of the FCP-2 study group from Dave Peterson and agreed to accept a complete report at the T10 plenary. Whether there will be a T10 new letter ballot on the FCP-2 revision is to be discussed at the T10 plenary.

6.2   IBM No Vote on FCP-2 (02-262) [Penokie]

This topic was discussed under item 6.1. It was agreed that only one item regarding FCP-2 need be present in future agendas.

6.3   SRP-2 Topics [Simpson]

The group discussed adding SRP-2 topics to the November CAP agenda and it was agreed that the SRP-2 work should be done in CAP in November instead of in a separate working group.

7.   Old Business

7.1   Project Proposal for AV Direct-access Commands (AVD) (01-337) [Johansson]

In the absence of Peter Johansson, this item was deferred.

8.   New Business

8.1   Delivery Results for SAM-3 () [Evans]

Mark Evans presented a preliminary proposal for adding a service delivery subsystem results parameter to the SAM-3 data transfer model procedure calls. The group advised Mark on changes that would speed approval of the

proposal at the next meeting. Mark agreed to prepare a detailed proposal containing the ideas provided by the group for consideration at the next meeting.

9. Review of Documents

No documents were brought before the working group to review.

10. Review of Recommendations to the Plenary

Ralph Weber noted that the following recommendations have been made to the T10 plenary:

    SES-2 SPC-3 Vendor-specific diagnostic pages (02-189r1) [Spicher & Elliott] {unanimous}
    SPC-3: Inquiry Command Parameter Length Increase (02-303r1) [Penokie] {r0 as revised, unanimous}
    Change ASC for truncated parameter in SPC-3 for LOG SELECT command (02-308r1) [Entzel] {r0 as revised, unanimous}
    Allowing TUR through Persistent Reservation (02-304r0) [Penokie] {unanimous, for November T10}
    Report Supported Task Management Functions (02-346r1) [Novak] {r0 as revised, 16:2:2}
    SAM-3 Names and identifiers for iSCSI revision 16 (02-348r0) [Krueger and Elliott] {unanimous}
    SAM-3 SPC-3 SBC-2 Clearing effects of I_T nexus loss (02-232r2) [Elliott & Chadalapaka] {unanimous}
    Response to T10 Letter Ballot comments on SAM-2 (02-155r6) [Weber] {r5 as revised, unanimous}

11. Meeting Schedule

The next meeting of the SCSI Commands, Architecture, and Protocols Working Group will be Wednesday, November 6, 2002 from 9 a.m. to 7 p.m. (or until all agenda items are completed). The meeting will be in Huntington Beach, CA at the Hilton Waterfront Beach Hotel (714-960-7873), hosted by QLogic Corp.

12. Adjournment

The meeting was adjourned at 2:50 p.m. on Wednesday September 11, 2002.