

Accredited Standards Committee*

InterNational Committee for Information Technology Standards (INCITS)

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Reply to: John Lohmeyer

To: T10 Membership
From: Ralph Weber and John Lohmeyer
Subject: SCSI Commands, Architecture, & Protocol Working Group Meeting -- March 12, 2003
Dallas, TX

Agenda

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3. Attendance and Membership
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 - 4.2 SAM-3 SPC-3 SAS FCP-3 SRP-2 Device names and VPD data (02-419) [Elliott]
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 - 4.4 SAM-3 Glossary Cleanup (03-004) [Weber]
 - 4.5 What is architectural about SAM-3 CDB definitions? (03-005) [Weber]
 - 4.6 Calls and Arguments in SAM-3 (03-108) [Weber]
 - 4.7 SAM-3 Incorrect LUNs in task management requests (03-097) [Elliott]
5. Command Set Topics
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10. Review of Recommendations to the Plenary
11. Meeting Schedule
12. Adjournment

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Results of Meeting

1. Opening Remarks

John Lohmeyer, the T10 Chair, called the meeting to order at 9:00 a.m., Wednesday March 12, 2003. He thanked Bob Kando and Paul Aloisi of Texas Instruments 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:

9.2 SRP-2 Multichannel Architecture (03-128r0) [Simpson]

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

none

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:

Name	S	Organization	Electronic Mail Address
Mr. Ron Roberts	P	Adaptec, Inc.	rkroberts@aol.com
Dr. Claudio DeSanti	P	Andiamo Systems, Inc.	cds@andiamo.com
Mr. Peter Johansson	P	Congruent Software, Inc.	PJohansson@ACM.org
Mr. Gary S. Robinson	P	EMC Corp.	robinson_gary@emc.com
Mr. David Black	A	EMC Corp.	black_david@emc.com
Mr. Robert H. Nixon	P	Emulex	bob.nixon@emulex.com
Mr. I. Dal Allan	A	ENDL	endlcom@acm.org
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	V	Hewlett Packard Co.	michael_banther@hp.com
Mr. Zane Daggett	P	Hitachi Cable Manchester	zdaggett@hcm.hitachi.com
Mr. George O. Penokie	P	IBM / Tivoli Systems	gop@us.ibm.com
Mr. Kevin Butt	AV	IBM Corp.	kdbutt@us.ibm.com
Mr. Cris Simpson	P	Intel Corp.	cris.simpson@intel.com
Mr. Robert Sheffield	A	Intel Corp.	robert.l.sheffield@intel.com
Mr. John Lohmeyer	P	LSI Logic Corp.	lohmeier@t10.org
Mr. Keith Holt	V	LSI Logic Corp.	keith.holt@lsil.com
Mr. Mark Evans	P	Maxtor Corp.	mark_evans@maxtor.com
Mr. Edward A. Gardner	AV	Ophidian Designs	eag@ophidian.com
Mr. Curtis Stevens	V	Pacific Digital Corp.	cstevens@pacificdigital.com
Mr. Bill Galloway	P	Pivot3, Inc.	billg@pivot3.com
Mr. Paul Entzel	P	Quantum Corp.	paul.entzel@quantum.com

Mr. Gerald Houlder	P	Seagate Technology	gerry.houlder@seagate.com
Dr. Paul Suhler	V	Seagate Technology	paul.a.suhler@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. Charles Binford	A	Sun Microsystems, Inc.	Charles.Binford@sun.com
Mr. Robert Kando	A	Texas Instruments	Robert.Kando@ti.com
Mr. Phil Shelton	A	UNISYS Corporation	phil.shelton@unisys.com
Mr. Kenneth Hirata	P	Vixel Corp.	Ken.Hirata@Vixel.com

31 People Present

Status Key: P - Principal
 A,A# - Alternate
 AV - Advisory Member
 L - Liaison
 V - Visitor

4. SCSI Architecture Model Topics

4.1 SAM-3, SPC-3, and SBC power conditions proposal (02-464) [Evans]

Mark Evans asked that discussion of this topic be deferred to the next meeting.

4.2 SAM-3 SPC-3 SAS FCP-3 SRP-2 Device names and VPD data (02-419) [Elliott]

Rob Elliott presented a proposal to extend the definitions of identifiers and names in the Device Identification VPD page (02-419r2).

The group discussed the naming of virtual logical units and whether or not the proposal addresses the issue.

Minor changes were requested in the proposal and Rob agreed to prepare a new revision.

George Penokie objected to requiring target device names to be only in the string format.

Rob Elliott moved that 02-419r3 (r2 as modified) be recommended for inclusion in SAM-3, SPC-3, FCP-3, SRP-2, and SAS. Bob Nixon seconded the motion.

George Penokie moved that the proposal be amended to include the binary NAA format as an option for target device names. Gerry Houlder seconded the motion to amend. The motion to amend passed 8:2:6.

Peter Johansson strongly urged Rob to return with a revised proposal at the next meeting.

Rob stated that schedule considerations recommend against delays in adopting the proposal.

Peter Johansson moved to table discussion of the motion to adopt the proposal. The motion to table failed for lack of a second.

The motion on the amended proposal passed on a vote of 6:4:6.

4.3 Remove ULP and LLP from SAM-3 (03-003) [Weber]

Ralph Weber presented a proposal to remove the confusing use of ULP and LLP from SAM-3 (03-003r0). The group requested several specific changes in the proposal, including the addition of two new figures and global

searches of SAM-3 for similar terms such as 'upper level'. Later in the meeting, Ralph agreed to search for uses of 'client' that should be 'application client' and 'server' that should be 'device server'.

Ralph agreed to revise the proposal for consideration at the next meeting.

4.4 SAM-3 Glossary Cleanup (03-004) [Weber]

Ralph Weber presented a proposal to cleanup several terminology problems in SAM-3 (03-004r1). The group requested that the phrase 'architectural abstraction' be removed from the proposal and Ralph agreed to prepare a new revision of the proposal.

Ralph Weber moved that 03-004r2 (r1 as modified) be recommended for inclusion in SAM-3. Mark Evans seconded the motion. In the absence of any objections, the motion passed unanimously.

4.5 What is architectural about SAM-3 CDB definitions? (03-005) [Weber]

Ralph Weber presented a proposal to move all information defining CDB formats, except the Control byte definition from SAM-3 to SPC-3 (03-005r0). Concerns were raised about the SAM-3 text describing the location of the Operation Code byte and Ralph agreed to prepare a revised proposal describing the issue.

Ralph Weber moved that 03-005r1 (r0 as modified) be recommended for inclusion in SAM-3 and SPC-3. Peter Johansson seconded the motion. In the absence of any objections, the motion passed unanimously.

4.6 Calls and Arguments in SAM-3 (03-108) [Weber]

Ralph Weber presented a proposal intended to make the usage of call and arguments consistent in SAM-3. Substantial concerns were raised about the proposal, including a suggestion that 'argument' be used instead of 'procedure parameter'. Ralph agreed to prepare a revised proposal for consideration at the next meeting.

4.7 SAM-3 Incorrect LUNs in task management requests (03-097) [Elliott]

Rob Elliott presented a proposal to define how task management functions routed to incorrect logical units are handled (03-097r0). The group raised serious objections to the addition of a task manager in target ports.

Rob requested that this topic be removed from future agendas.

5. Command Set Topics

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

In the absence of Dave Peterson discussion of this topic was deferred to the next meeting.

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

In the absence of Dave Peterson discussion of this topic was deferred to the next meeting.

5.3 Further Work on Migration to Persistent Reservations (02-483) [Cummings]

In the absence of Roger Cummings discussion of this topic was deferred to the next meeting.

5.4 SPC-3 Rename some SAS additional sense codes (03-088) [Elliott]

Rob Elliott presented a proposal to rename two additional sense codes defined by SAS (03-088r0). John Lohmeyer moved that 03-088r0 be recommended for inclusion in SPC-3. Bob Nixon seconded the motion. In the absence of any objections, the motion passed unanimously.

5.5 Other SPC-3 Fixes (03-092) [Penokie]

George Penokie presented requests for two minor changes in SPC-3 (03-092r0). The group noted that the second of the proposed changes has already been addressed in SPC-3 r11 as the result of discussion held at the last meeting. George agreed to revise the proposal to remove the second proposed change.

George Penokie moved that 03-092r1 (r0 as modified) be recommended for inclusion in SPC-3. Mark Evans seconded the motion. In the absence of any objections, the motion passed unanimously.

5.6 Yet More Persistent Reservation Fixes (03-094) [Penokie]

George Penokie presented a proposal to correct several problems in the definition of persistent reservations introduced by the All Registrants type persistent reservation (03-094r0). The group requested changes and George agreed to prepare a revised proposal for consideration at the next meeting.

5.7 RBC Defect Report (03-021) (RBC-A) [Atkinson, Roberts]

Ron Roberts and John Lohmeyer presented a proposed amendment for RBC to correct problems reported to INCITS by Ben Atkinson (03-021r0). The group requested that the amendment be revised to match the content of RBC r10. Other changes also were requested. Ron agreed to prepare a new revision of the amendment.

John stated his intention to issue a letter ballot on forwarding the revised amendment.

5.8 SES-2 Enclosure/Array Control Device Element for device activity (03-059) [Sheffield]

Bob Sheffield presented a proposal to define a DR_ACT bit in SES-2 (03-059r0). The group requested changes in the proposal and Bob agreed to prepare a revised proposal for consideration at the next meeting.

5.9 SPC-3 MSB and LSB labels (03-127) [Elliott]

Rob Elliott presented a proposal to remove some MSB and LSB labels in SPC-3 (03-127r0). Strong objections were raised regarding the proposal to remove the MSB and LSB on ASCII strings. The group agreed on changes that would both address the objections and remain true to the concerns that motivated creation of the proposal.

Rob agreed to prepare a revised proposal for consideration at the next meeting.

6. SCSI Protocol Topics

Discussion of this topic was handled under item 9.2.

7. Old Business

No old business was brought before the group.

8. New Business

8.1 Remove TARGET RESET from SAM-3 and SPC-3 (03-001) [Weber]

Ralph Weber presented a proposal the effect of which would be to remove the TARGET RESET task management function from SAM-3 (03-001r1).

Ralph Weber moved that 03-001r1 be recommended for incorporation in SAM-3 and SPC-3. Mark Evans seconded the motion.

Peter Johansson objected to the removal of TARGET RESET because initiators still use it. Rob Elliott countered that motivating initiators not to use the TARGET RESET task management function was an objective of removing it from SAM-3. It was further noted that removing the TARGET RESET task management function does not prevent targets from being reset based on actions other than delivery of the TARGET RESET task management function.

The motion passed on a vote of 17:2:2.

Peter Johansson requested that the minutes reflect that he voted against the motion based on his concern that the TARGET RESET task management function should be retained because hosts still use it even if LOGICAL UNIT RESET is the preferred mechanism.

8.2 End to End Data Protection presentation (03-110) [Houlder]

Gerry Houlder presented an overview of a mechanism to provide end to end data protection (03-110r0). Concerns were raised that the proposal provides HBA to media data protection, not application to media data protection. To some stopping the protection at the HBA was not sufficient, while others saw standardization of HBA to media data protection as valuable.

Gerry agreed to prepare a more detailed proposal and a more careful review of the intended uses of such a feature for consideration at the next meeting.

9. Review of Documents

9.1 SRP-2 Review (SRP-2) [Simpson]

At the request of Cris Simpson, discussion of this topic was deferred to the next meeting.

9.2 SRP-2 Multichannel Architecture (03-128r0) [Simpson]

Cris Simpson presented review of the goals for SRP-2 and discussion of current plans to meet those goals (03-128r0). The group advised Cris on how to proceed with developing proposals for consideration at future meetings.

10. Review of Recommendations to the Plenary

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

For inclusion in SAM-3 SPC-3 SAS FCP-3 SRP-2:

SAM-3 SPC-3 SAS FCP-3 SRP-2 Device names and VPD data (02-419r3) {r2 as revised} [Elliott] {6:4:6}

For inclusion in SAM-3 and SPC-3:

Remove TARGET RESET from SAM-3 and SPC-3 (03-001r1) [Weber] {17:2:2}
What is architectural about SAM-3 CDB definitions? (03-005r1) {r0 as revised} [Weber] {unanimous}

For inclusion in SAM-3:
SAM-3 Glossary Cleanup (03-004r2) {r1 as revised} [Weber] {unanimous}

For inclusion in SPC-3:
SPC-3 Rename some SAS additional sense codes (03-088r0) [Elliott] {unanimous}
Other SPC-3 Fixes (03-092r1) {r0 as revised} [Penokie] {unanimous}

11. Meeting Schedule

The next meeting of the SCSI Commands, Architecture, and Protocols Working Group will be Wednesday, May 7, 2003 from 9 a.m. to 7 p.m. (or until all agenda items are completed). The meeting will be in Nashua, NH at the Crowne Plaza Nashua (603-886-1200), hosted by Hitachi Cable Manchester.

12. Adjournment

The meeting was adjourned at 6:40 p.m. on Wednesday March 12, 2003.