

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

Doc. No.: T10/04-038r0

Date: January 15, 2004

Reply to: John Lohmeyer

To: T10 Membership  
From: Ralph Weber and John Lohmeyer  
Subject: SCSI Commands, Architecture, & Protocol Working Group Meeting -- January 13-14, 2004  
Chandler, AZ

## Agenda

1. Opening Remarks
2. Approval of Agenda
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4. SCSI Architecture Model Topics
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  - 4.2 SAM-3 SPC-3 Status precedence (03-368) [Elliott]
  - 4.3 SAM-3:Converting to UML part 1 (04-023) [Penokie]
5. Command Set Topics
  - 5.1 Reservations Proposals
    - 5.1.1 Ordered SCSI proposal (02-283) [Peterson]
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    - 5.1.3 Two persistent Reservations Problems - Update & Decision Required (03-231, 03-232, 03-233) [Cummings]
    - 5.1.4 Modified Reservation Handling Proposal (03-232) [Cummings]
    - 5.1.5 Only if Reserved (OIR) Proposal (03-289) [Cummings]
    - 5.1.6 SPC-3 Third party persistent reservations (03-337) [Elliott]
    - 5.1.7 SPC-3 Persistent reservations read full status (03-342) [Elliott]
    - 5.1.8 SPC-3: Remove Element Reservations (AI from SMC-2) (03-167) [Butt]
  - 5.2 SPC-3 Proposals
    - 5.2.1 Command Classification Field (03-361) [Penokie]
    - 5.2.2 Invalid LUN on Request Sense Command (03-376) [Penokie]
    - 5.2.3 SPC-3 Mode Page Policy VPD page (03-316) [Elliott]
    - 5.2.4 SPC-3 SAM-3 Report all initiator and target ports (03-344, 03-353) [Elliott]
    - 5.2.5 SPC-3 Specify initiator ports in EXTENDED COPY target descriptors (03-354) [Elliott]
    - 5.2.6 SPC-3 Report LUNS Clarification (03-386) [Binford]
    - 5.2.7 SPC-3 Padding Supported Diagnostic Pages (04-031) [Elliott]
    - 5.2.8 Additional Sense Code requests for OSD r09 (04-022) [Weber]
    - 5.2.9 SPC-3, New ASC/ASCQ for ESI data validation checksum error (04-043) [Coomes]
  - 5.3 SBC-2 Proposals
    - 5.3.1 Changing Logical Block Sizes (04-011) [Penokie]
    - 5.3.2 SBC-2:Write Same fixes (04-012) [Penokie]
    - 5.3.3 SBC-2:List of Functions to Obsolete (04-013) [Penokie]
    - 5.3.4 SBC-2: Problems with application client modifiable logical block reference tag (04-015) [Penokie]
    - 5.3.5 SBC-2 4-byte LBA commands on 8-byte LBA capable drives (03-348) [Elliott]
    - 5.3.6 SBC-2 Nonvolatile caches (03-388) [Elliott]
    - 5.3.7 SBC, SPC, Obsolete Third Party XOR Commands (04-016) [Coomes]
    - 5.3.8 SPC-3 and SBC-2 power conditions clarifications (04-025) [Evans]

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- 5.4 SES-2 Proposals
  - 5.4.1 SES-2 SPC-3 Generation code for Help Text and String pages (04-007) [Elliott]
  - 5.4.2 SPC-3 SES-2 Diagnostic subpages (04-010) [Elliott]
- 5.5 End-to-End Data Protection Proposals
  - 5.5.1 End-to-End Data Protection justification (03-224) [Holt]
  - 5.5.2 Architecture for End to End Data Protection (03-291) [Snively]
  - 5.5.3 SBC, 32 Byte Commands for End-to-End Data Protection (03-307) [Coomes]
  - 5.5.4 End-to-End Data Protection Proposal - Straw Horse for 03-111r1 (03-310) [Holt]
  - 5.5.5 SBC-2 Data protection CRC seed (03-381) [Elliott]
  - 5.5.6 End-to-End Data Protection and Legacy Tape Drives (03-389) [Banther]
  - 5.5.7 SBC-2 Data protection usage detection (03-387) [Elliott]
  - 5.5.8 SBC, Data Protection Information for XPWRITE (04-024) [Coomes]
  - 5.5.9 SBC-2: Problems with application client modifiable logical block reference tag (04-015) [Penokie]
- 5.6 Other Proposals
  - 5.6.1 MSC Report Bridge Mapping command (03-364) [Elliott]
  - 5.6.2 OSD Error Handling Model and SPC-3 Sense Data Descriptors (04-044) [Weber]
- 6. SCSI Protocol Topics
  - 6.1 Per-Command Priority Tagging (03-302) [Penokie]
- 7. Old Business
- 8. New Business
- 9. Review of Documents
  - 9.1 SRP-2 Review (SRP-2) [Simpson]
- 10. Review of Recommendations to the Plenary
- 11. Meeting Schedule
- 12. Adjournment

## Results of Meeting

### 1. Opening Remarks

John Lohmeyer, the T10 Chair, called the meeting to order at 11:05 a.m., Tuesday January 13, 2004. He thanked Bob Sheffield of Intel 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 no additions or changes.

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

- 5.5.9 SBC-2: Problems with application client modifiable logical block reference tag (04-015) [Penokie]

As is customary in January, the group covered agenda item 6 first, then 5, then 4.

### 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. Tim Symons	P	Adaptec, Inc.	Timothy_Symons@adaptec.com
Ms. Pat Thaler	P	Agilent Technologies	pat_thaler@agilent.com
Mr. Neil Wanamaker	AV	AMCC	nwanamaker@amcc.com
Mr. Murali Rajagopal	V	Broadcom Corp.	muralir@broadcom.com
Mr. Robert Snively	P	Brocade Comm. Systems, Inc.	rsnively@brocade.com
Mr. Titkwan Hui	A	Dallas Semiconductor	tk.hui@dalsemi.com
Mr. David Black	A	EMC Corp.	black_david@emc.com
Mr. Gary S. Robinson	P	EMC Corp.	robinson_gary@emc.com
Mr. Robert H. Nixon	P	Emulex	bob.nixon@emulex.com
Mr. Ralph O. Weber	P	ENDL Texas	roweber@ieee.org
Mr. Mike Fitzpatrick	P	Fujitsu	mfitzpatrick@fcpa.fujitsu.com
Mr. Tim Mackley	A	General Dynamics	timothy.mackley@gd-ais.com
Mr. Michael Banther	V	Hewlett Packard Co.	michael_banther@hp.com
Mr. Rob Elliott	P	Hewlett Packard Co.	Elliott@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. Robert Sheffield	P	Intel Corp.	robert.l.sheffield@intel.com
Mr. David Hawks	A	Iomega Corp.	hawks@iomega.com
Mr. Dennis Moore	AV	KnowledgeTek, Inc.	dmoore@ix.netcom.com
Mr. Keith Holt	A	LSI Logic Corp.	keith.holt@lsil.com
Mr. Steve Johnson	V	LSI Logic Corp.	sjohnson@lsil.com
Mr. John Lohmeyer	P	LSI Logic Corp.	lohmeier@t10.org
Mr. David Weber	V	LSI Logic Corp.	david.weber@lsil.com
Mr. Doug Cole	V	Maxim/Dallas Semiconductor	doug.cole@dalsemi.com
Mr. Mark Evans	P	Maxtor Corp.	mark_evans@maxtor.com
Mr. Bill Galloway	P	Pivot3, Inc.	billg@pivot3.com
Mr. Craig W. Carlson	A#	QLogic Corp.	craig.carlson@qlogic.com
Mr. Paul Entzel	P	Quantum Corp.	paul.entzel@quantum.com
Mr. Jim Coomes	A	Seagate Technology	jim.coomes@seagate.com
Dr. Paul Suhler	V	Seagate Technology	Paul.A.Suhler@certance.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. Roger Cummings	P	Veritas Software	roger.cummings@veritas.com

35 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 Task Attributes VPD page (03-351) [Elliott]**

Rob Elliott presented a proposal to return information about supported task attributes in a new VPD page (03-351r1). The group requested changes and Rob agreed to prepare a new revision of the proposal.

Rob Elliott moved that 03-351r2 (r1 as modified) be recommended for inclusion in SAM-3 and SPC-3. Bill Galloway seconded the motion. In the absence of any objections, the motion passed unanimously.

### **4.2 SAM-3 SPC-3 Status precedence (03-368) [Elliott]**

Rob Elliott presented a proposal to restructure the status precedence subclause in SAM-3 (03-368r1). The group requested minor changes and Rob agreed to prepare a new revision.

Rob Elliott moved that 03-368r2 (r1 as modified) be recommended for inclusion in SAM-3. Bill Galloway seconded the motion. In the absence of any objections, the motion passed unanimously.

### **4.3 SAM-3:Converting to UML part 1 (04-023) [Penokie]**

Due to the late hour, George Penokie requested that discussion of this topic be deferred to the next meeting.

## **5. Command Set Topics**

### **5.1 Reservations Proposals**

#### **5.1.1 Ordered SCSI proposal (02-283) [Peterson]**

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

#### **5.1.2 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.

#### **5.1.3 Two persistent Reservations Problems - Update & Decision Required (03-231, 03-232, 03-233) [Cummings]**

Roger Cummings requested that this topic be removed from this and future agendas.

#### **5.1.4 Modified Reservation Handling Proposal (03-232) [Cummings]**

Roger Cummings presented a proposal to increase the degree of coexistence between Reserve/Release Reservations and Persistent Reservations (03-232r4). The group requested minor changes and Roger agreed to prepare a new revision of the proposal.

Roger Cummings moved that 03-232r5 (r4 as modified) be recommended for inclusion in SPC-3. Bob Nixon seconded the motion. In the absence of any objections, the motion passed unanimously.

#### **5.1.5 Only if Reserved (OIR) Proposal (03-289) [Cummings]**

Due to the late hour, Roger Cummings asked that discussion of this topic be deferred to the next meeting.

### **5.1.6 SPC-3 Third party persistent reservations (03-337) [Elliott]**

Due to the late hour, Rob Elliott and Roger Cummings asked that discussion of this topic be deferred to the next meeting.

### **5.1.7 SPC-3 Persistent reservations read full status (03-342) [Elliott]**

Due to the late hour, George Penokie asked that discussion of this topic be deferred to the next meeting.

### **5.1.8 SPC-3: Remove Element Reservations (AI from SMC-2) (03-167) [Butt]**

Kevin Butt presented a proposal to remove element reservations from SPC-3 (03-167r1). The group requested changes and Kevin agreed to prepare a new revision.

Kevin Butt moved that 03-167r2 (r1 as modified) be recommended for inclusion in SPC-3. Bob Nixon seconded the motion. In the absence of any objections, the motion passed unanimously.

## **5.2 SPC-3 Proposals**

### **5.2.1 Command Classification Field (03-361) [Penokie]**

George Penokie presented a proposal to add a classification field to all commands (03-361r1). The group requested substantial changes and George agreed to prepare a new revision of the proposal for consideration during the next meeting.

Concerns were raised about the relationship between this work and ongoing SNIA efforts. David Black offered to assist in creating some liaison between T10 and SNIA in this area. It was not clear whether such efforts will prove to be successful.

### **5.2.2 Invalid LUN on Request Sense Command (03-376) [Penokie]**

George Penokie presented a proposal to correct an inconsistency between SPC-3 and SAM-3 regarding invalid logical unit selection on a Request Sense command (03-376r2). The group requested a substantial restructuring of the proposal and George agreed to prepare a revised proposal for further consideration during the next meeting.

### **5.2.3 SPC-3 Mode Page Policy VPD page (03-316) [Elliott]**

Rob Elliott presented a proposal to define a VPD page to inform application clients of the mode page sharing policy (03-316r2). The group requested minor changes and Rob agreed to prepare a new revision.

Rob Elliott moved that 03-316r3 (r2 as modified) be recommended for inclusion in SPC-3. Bob Nixon seconded the motion. In the absence of any objections, the motion passed unanimously.

### **5.2.4 SPC-3 SAM-3 Report all initiator and target ports (03-344) [Elliott]**

Rob Elliott presented a proposal to add a VPD page listing all initiator and target ports in a target device (03-344r3). The part of the proposal requesting the reduction of the relative port number size from 4 bytes to 2 bytes gave the group concerns about existing implementations. Rob agreed to announce the planned change on the T10 reflector and solicit complaints.

The group requested substantial changes in the proposal and Rob agreed to prepare a new revision for consideration during the next meeting.

### **5.2.5 SPC-3 Specify initiator ports in EXTENDED COPY target descriptors (03-354) [Elliott]**

Rob Elliott presented a proposal to add specifications for which initiator port to use in an EXTENDED COPY operation (03-354r1). The group requested minor changes. Because this proposal depends on approval of 03-344 (see item 5.2.4), Rob agreed to revise the proposal for consideration at the next meeting.

### **5.2.6 SPC-3 Report LUNS Clarification (03-386) [Binford]**

Charles Binford presented a proposal to clarify the contents of the logical unit inventory reported by the REPORT LUNS command (03-386r1). The group requested major changes and Charles agreed to prepare a new revision of the proposal for consideration during the next meeting.

### **5.2.7 SPC-3 Padding Supported Diagnostic Pages (04-031) [Elliott]**

Rob Elliott presented a proposal to pad the supported diagnostic pages list to be four-byte aligned (04-031r0). Charles Binford questioned why just this one page presented problems. Other pages can be odd lengths. The relationship of this concern with ESI (Enclosure Services Interface) was discussed but not clarified.

Rob agreed to take the proposal and the group's comments back to his engineers for further consideration.

### **5.2.8 Additional Sense Code requests for OSD r09 (04-022) [Weber]**

Ralph Weber presented a request for the assignment of two additional sense codes for use by OSD devices (04-022r1). Ralph Weber moved that 04-022r1 be recommended for inclusion in SPC-3. Bill Galloway seconded the motion. In the absence of any objections, the motion passed unanimously.

### **5.2.9 SPC-3, New ASC/ASCQ for ESI data validation checksum error (04-043) [Coomes]**

Jim Coomes presented a proposal to define a new additional sense code definition for 35h/05h (04-043r0). Jim Coomes moved that 04-043r0 be recommended for inclusion in SPC-3. Bill Galloway seconded the motion. In the absence of any objections, the motion passed unanimously.

## **5.3 SBC-2 Proposals**

### **5.3.1 Changing Logical Block Sizes (04-011) [Penokie]**

George Penokie presented a proposal (04-011r0) to define that changes in disk block sizes require two steps that must be performed in the correct order: 1) changing the block length in the mode page header, and 2) issuing a FORMAT command. Concerns were raised about the proposed SPC-3 changes adversely affecting tape devices and George agreed to prepare a new revision of the proposal for consideration during the next meeting.

### **5.3.2 SBC-2:Write Same fixes (04-012) [Penokie]**

George Penokie presented a proposal to correct to problems in the WRITE SAME(16) command (04-012r0). The group requested substantial changes and George agreed to prepare a new revision of the proposal for consideration during the next meeting.

### **5.3.3 SBC-2:List of Functions to Obsolete (04-013) [Penokie]**

George Penokie presented a proposed list of SBC-2 clauses and subclauses to be made obsolete (04-013r0). The group requested minor changes and George agreed to prepare a new revision.

George Penokie moved that 04-013r1 (r0 as modified) be recommended for inclusion in SBC-2. Bob Nixon seconded the motion. The motion passed on a vote of 10:0:2.

#### **5.3.4 SBC-2: Problems with application client modifiable logical block reference tag (04-015) [Penokie]**

George Penokie asked that this topic be discussed as part of the end-to-end agenda (see 5.5) so the topic was discussed under agenda item 5.5.9.

#### **5.3.5 SBC-2 4-byte LBA commands on 8-byte LBA capable drives (03-348) [Elliott]**

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

#### **5.3.6 SBC-2 Nonvolatile caches (03-388) [Elliott]**

Rob Elliott presented a proposal to add discussion of nonvolatile caches in SBC-2 (03-388r0). The group objected to the proposed changes to the definition of the FUA bit and substantial changes were requested in the proposal. Rob agreed to revise the proposal for consideration during the next meeting.

#### **5.3.7 SBC, SPC, Obsolete Third Party XOR Commands (04-016) [Coomes]**

Jim Coomes presented a proposal to remove the third party XOR commands (04-016r1). The group discussed minor changes in the proposal and Jim agreed to prepare a new revision.

Jim Coomes moved that 04-016r2 (r1 as modified) be recommended for inclusion in SPC-3 and SBC-2. Bill Galloway seconded the motion. In the absence of any objections, the motion passed unanimously.

#### **5.3.8 SPC-3 and SBC-2 power conditions clarifications (04-025) [Evans]**

Mark Evans presented a proposal to clarify the wording about power conditions in SPC-3 and SBC-2 (04-025r0). Mark Evans moved that 04-025r0 be recommended for inclusion in SPC-3 and SBC-2. Bill Galloway seconded the motion. In the absence of any objections, the motion passed unanimously.

### **5.4 SES-2 Proposals**

#### **5.4.1 SES-2 SPC-3 Generation code for Help Text and String pages (04-007) [Elliott]**

Rob Elliott presented a proposal to add a generation number to signify changes in help text SES pages (04-007r0). Rob Elliott moved that 04-007r0 be recommended for inclusion in SES-2 and SPC-3. Bob Sheffield seconded the motion. In the absence of any objections, the motion passed unanimously.

#### **5.4.2 SPC-3 SES-2 Diagnostic subpages (04-010) [Elliott]**

Rob Elliott presented a proposal to define subpages for diagnostic pages (04-010r0). One motivation for the change was support for the ESI (Enclosure Services Interface) SFF specification. The group requested changes in the proposal and Rob agreed to revise the proposal for further consideration during the next meeting.

### **5.5 End-to-End Data Protection Proposals**

#### **5.5.1 End-to-End Data Protection justification (03-224) [Holt]**

Keith Holt asked that this item be removed from this and future agendas.

### **5.5.2 Architecture for End to End Data Protection (03-291) [Snively]**

Bob Snively stated that he believes that the current solution is not complete but that discussion of this topic during this meeting will not achieve the needed results.

Bob asked that further discussion of this topic be deferred to the next meeting.

### **5.5.3 SBC, 32 Byte Commands for End-to-End Data Protection (03-307) [Coomes]**

Jim Coomes presented a proposal detailing the changes needed to support application specified data block reference tag and application tag values (03-307r5).

Jim requested a straw poll among six choices for the direction of additional work on the proposal and the following results were obtained:

- 8 votes for – Enable 32-byte and only 32-byte concurrently with media formatting
- 9 votes for – Enable 32-byte write and any read concurrently with media formatting
- 2 votes for – Enable 32-byte and only 32-byte with mode page
- 7 votes for – Enable 32-byte write and any read with mode page
- 5 votes for – Add warning text about interoperability problems
- 2 votes for – Do not define 32-byte commands

Jim agreed to revise the proposal for consideration during the next meeting.

### **5.5.4 End-to-End Data Protection Proposal - Straw Horse for 03-111r1 (03-310) [Holt]**

Keith Holt asked that this item be removed from this and future agendas.

### **5.5.5 SBC-2 Data protection CRC seed (03-381) [Elliott]**

Rob Elliott presented a proposal to change the end-to-end data protection CRC seed (03-381r0). The group discussed the reasons for using a just one CRC and seed for all device types verses the interests of tapes in having a non-zero CRC seed. The potential need for 32-bit CRCs on tapes, as opposed to the 16-bit CRCs currently defined for disks was also discussed.

Rob Elliott moved that 03-381r0 be recommended for inclusion in SBC-2. Bill Galloway seconded the motion. The motion failed on a vote of 5:6:6.

### **5.5.6 End-to-End Data Protection and Legacy Tape Drives (03-389) [Banther]**

Michael Banther presented a discussion of issues related to tape support for end-to-end data protection (03-389r0). The group discussed how best to maintain end-to-end protection information across backup and restore operations.

It was noted that the EXTENDED COPY command interface needs to be updated to provide control over end-to-end protection usage.

No action was taken. The presentation will not be revised or presented again.

### **5.5.7 SBC-2 Data protection usage detection (03-387) [Elliott]**

Rob Elliott presented a proposal to add information about the currently active end-to-end data protection features to the parameter data returned by a READ CAPACITY(16) command (03-387r1). The group requested editorial changes and Rob agreed to prepare a new revision of the proposal.



Rob Elliott moved that 03-387r2 (r1 as modified) be recommended for inclusion in SBC-2. Bill Galloway seconded the motion. In the absence of any objections, the motion passed unanimously.

#### **5.5.8 SBC, Data Protection Information for XPWRITE (04-024) [Coomes]**

Jim Coomes presented a proposal to define what XPWRITE does for end-to-end data protection (04-024r0). Jim noted that the proposed operation is the simplest of the alternatives and the group discussed several alternatives that are more complex.

The group requested editorial changes and Jim agreed to prepare a new revision.

Jim Coomes moved that 04-024r1 (r0 as modified) be recommended for inclusion in SBC-2. Bob Nixon seconded the motion. In the absence of any objections, the motion passed unanimously.

#### **5.5.9 SBC-2: Problems with application client modifiable logical block reference tag (04-015) [Penokie]**

George Penokie presented a description of the two issues that lead to his opposition to allowing reference tags to be values that do not reference the LBA in which the block is being stored (04-015r0). The group discussed the issues.

George concluded his presentation by noting that the topic should be removed from future agendas.

### **5.6 Other Proposals**

#### **5.6.1 MSC Report Bridge Mapping command (03-364) [Elliott]**

Rob Elliott reviewed the comments made about 03-364r0 (a proposal for a REPORT BRIDGE MAPPING command to be incorporated in the MSC standard) during a telephone conference call. The group advised Rob on resolutions for outstanding problems in the proposal. Rob agreed to revise the proposal for further consideration during the next meeting.

Rob asked that a conference call be approved to discuss 03-364r1 when it is ready. George Penokie asked that consideration be given to scheduling T10 meeting week time for MSC during the May meeting week.

#### **5.6.2 OSD Error Handling Model and SPC-3 Sense Data Descriptors (04-044) [Weber]**

Ralph Weber presented a proposal to add a error reporting model subclause to OSD and two new sense data descriptors to SPC-3 (04-044r0). Ralph Weber moved that 04-044r0 be recommended for inclusion in SPC-3 and OSD. Bob Nixon seconded the motion. In the absence of any objections, the motion passed unanimously.

## **6. SCSI Protocol Topics**

### **6.1 Per-Command Priority Tagging (03-302) [Penokie]**

George Penokie presented a proposal to add command priorities to FCP-3, SAS 1.1, and SRP-2 command IUs (03-302r2). There were concerns on how setting the default priority would be managed. The use of a mode page was suggested as an appropriate solution for the default priority management problems in the proposal.

Rob Elliott asked that the proposal address the reservation conflicts that might arise for the proposed new commands.

George agreed to revise the proposal for further consideration during the next meeting.

## 7. Old Business

All old business was covered under specific agenda items.

## 8. New Business

All new business was covered under specific agenda items.

## 9. Review of Document

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

In the absence of Cris Simpson, reviewing SRP-2 was deferred to the next meeting.

## 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:

03-368r2 (SAM-3 SPC-3 Status precedence) [Elliott]

For inclusion in SAM-3 and SPC-3:

03-351r2 (SAM-3 SPC-3 Task Attributes VPD page) [Elliott]

For inclusion in SPC-3:

04-043r0 (SPC-3, New ASC/ASCQ for ESI data validation checksum error) [Coomes]

04-022r1 (Additional Sense Code requests for OSD r09) [Weber]

03-316r3 (SPC-3 Mode Page Policy VPD page) [Elliott]

03-167r2 (SPC-3: Remove Element Reservations (AI from SMC-2)) [Butt]

03-232r5 (Modified Reservation Handling Proposal) [Cummings]

For inclusion in SPC-3 and SBC-2:

04-016r2 (SBC-2, SPC-3 Obsolete Third Party XOR Commands) [Coomes]

04-025r0 (SPC-3 and SBC-2 power conditions clarifications) [Evans]

For inclusion in SPC-3 and OSD:

04-044r0 (OSD Error Handling Model and SPC-3 Sense Data Descriptors) [Weber]

For inclusion in SPC-3 and SES-2:

04-007r0 (SES-2 SPC-3 Generation code for Help Text and String pages) [Elliott]

For inclusion in SBC-2:

03-387r2 (SBC-2 Data protection usage detection) [Elliott]

04-024r1 (SBC-2 Data Protection Information for XPWRITE) [Coomes]

04-013r1 (SBC-2 List of Functions to Obsolete) [Penokie]

## **11. Meeting Schedule**

Subject to possible changes by the T10 plenary, the next meeting of the SCSI Commands, Architecture, and Protocols Working Group will be Tuesday, March 9, 2004 commencing at 9:00 a.m. and continuing Wednesday, March 10, 2004 from 9 a.m. to 7 p.m. (or until all agenda items are completed). The meeting will be in Dana Point, CA at the Laguna Cliffs Marriott Hotel (949-661-5000), hosted by QLogic Corp.

## **12. Adjournment**

The meeting was adjourned at 7:15 p.m. on Wednesday January 14, 2004.