

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

Doc. No.: T10/02-395r0

Date: October 1, 2002

Reply to: John Lohmeyer

To: T10 Membership
From: John Lohmeyer
Subject: SAS Protocol Teleconference -- October 1, 2002

Agenda

1. Opening Remarks
2. Approval of Agenda
3. Attendance and Membership
4. Old Business
 - 4.1 SAS Working Draft Review [Elliott]
 - 4.2 SAS Relative Offset (02-319) [Gardner]
 - 4.3 SAS Data Corruption Problem (02-323) [Gardner]
 - 4.4 SAS Spinup (02-360) [Elliott]
 - 4.5 SAS Disconnect-Reconnect Mode Parameters (02-324) [Gardner]
 - 4.6 Details of SAS Expander Configuration (02-359) [Fairchild]
 - 4.7 STP Initiators closing connections (02-363) [Day]
 - 4.8 Informative Annex on Expanders (02-291) [Hoglund]
 - 4.9 SAS Programmable PPTOV (02-387) [Hoglund]
 - 4.10 SAS Change Notification Proposal (02-383) [Reif]
5. New Business
 - 5.1 SAS - I_T nexus loss for NAKs or lack of credit [Elliott]
 - 5.2 SAS Port layer rewrite (02-393) [Elliott]
 - 5.3 SAS SPC-3 Protocol Specific log page (02-394) [Elliott]
 - 5.4 CRC on Frame Header [Roberts]
6. Review of Recommendations to the Plenary
7. Meeting Schedule
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Results of Meeting

1. Opening Remarks

John Lohmeyer called the meeting to order at 9:00 a.m. MDT, Tuesday, October 1, 2002. He thanked George Penokie for hosting the call and Jim Coomes for hosting the WebEx session.

2. Approval of Agenda

The draft agenda was approved with the following changes:

- 5.2 SAS Port layer rewrite (02-393) [Elliott]
- 5.3 SAS SPC-3 Protocol Specific log page (02-394) [Elliott]
- 5.4 CRC on Frame Header [Roberts]

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INCITS Secretariat, Information Technology Industry Council (ITI)
1250 Eye Street NW, Suite 200, Washington, DC 20005-3922
Email: incits@itic.org Telephone: 202-737-8888 FAX: 202-638-4922

No items were added/revised during the course of the meeting.

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.	Ron_Roberts@adaptec.com
Mr. Kyle Sterling	V	Adaptec, Inc.	ksterlin@corp.adaptec.com
Mr. Lafe Moon	V	Data Transit Corp.	lafe@data-transit.com
Mr. David Freeman	V	Data Transit Corp.	davidf@data-transit.com
Mr. Rob Elliott	P	Hewlett Packard Co.	Elliott@hp.com
Mr. Steven Fairchild	V	Hewlett Packard Co.	Steve.Fairchild@hp.com
Mr. Jim Reif	V	Hewlett Packard Co.	jim.reif@hp.com
Mr. Matt Otto	V	I-TECH Corp.	matt_otto@i-tech.com
Mr. Steven Wirtz	V	I-TECH Corp.	steve_wirtz@i-tech.com
Mr. George O. Penokie	P	IBM / Tivoli Systems	gop@us.ibm.com
Mr. Dan Colegrove	V	IBM Corp.	dcolegro@us.ibm.com
Mr. Kevin Sherman	V	IBM Corp.	
Mr. Pak Seto	V	Intel	pak-lung.seto@intel.com
Mr. Robert Sheffield	A	Intel Corp.	robert.l.sheffield@intel.com
Mr. John Lohmeyer	P	LSI Logic Corp.	lohmeier@t10.org
Mr. Brian Day	V	LSI Logic Corp.	brian.day@lsil.com
Mr. Tim Hogleund	V	LSI Logic Corp.	tim.hogleund@lsil.com
Mr. Brad Besmer	V	LSI Logic Corp.	brad.besmer@lsil.com
Mr. Steve Johnson	V	LSI Logic Corp.	sjohnson@lsil.com
Mr. Ting Li Chan	V	QLogic Corp.	ting.chan@qlogic.com
Mr. Jim Coomes	V	Seagate Technology	jim.coomes@seagate.com
Mr. John Worden	V	Seagate Technology	john.worden@seagate.com
Mr. Scott Younger	V	Seagate Technology	Scott.Younger@seagate.com

23 People Present

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

4. Old Business

4.1 SAS Working Draft Review [Elliott]

This item was deferred due to the late hour.

4.2 SAS Relative Offset (02-319) [Gardner]

In the absence of Ed Gardner, this item was deferred.

4.3 SAS Data Corruption Problem (02-323) [Gardner]

In the absence of Ed Gardner, this item was deferred.

4.4 SAS Spinup (02-360) [Elliott]

Rob Elliott asked that this item be deferred.

4.5 SAS Disconnect-Reconnect Mode Parameters (02-324) [Gardner]

In the absence of Ed Gardner, this item was deferred.

4.6 Details of SAS Expander Configuration (02-359) [Fairchild]

Steve Fairchild presented 02-359r2, Details of SAS Expander Configuration. He received input and agreed to revise his proposal. Steve Fairchild moved that 02-359r3 (r2 as revised) be recommended for inclusion in SAS. Tim Hogleund seconded the motion. George Penokie noted that the document has not been reviewed for editorial correctness. Ron Roberts expressed concerns about the completeness of the documentation.

The motion passed 4:3:2 on a roll-call vote:

Adaptec	No
Data Transit	Yes
HP	Yes
I-Tech	Abs
IBM	No
Intel	No
LSI	Yes
QLogic	Abs
Seagate	Yes

Rob Elliott said that he would not include this proposal in the SAS working draft before the editing meeting this week. He asked that we review 02-359r3 at the editing meeting. He plans to incorporate the edited proposal in SAS rev 2a following the editing meeting.

4.7 STP Initiators closing connections (02-363) [Day]

Brian Day asked that this item be deferred.

4.8 Informative Annex on Expanders (02-291) [Hogleund]

Tim Hogleund asked that this item be deferred.

4.9 SAS Programmable PPTOV (02-387) [Hogleund]

Tim Hogleund presented 02-387r0, SAS Programmable PPTOV. He received input and agreed to revise his proposal.

4.10 SAS Change Notification Proposal (02-383) [Reif]

Jim Reif discussed his 02-383r0 proposal on changes to the CHANGE notification. He received input, agreed to revise the proposal to permit CHANGE primitives on more than one phy of a wide port.

5. New Business

5.1 SAS - I_T nexus loss for NAKs or lack of credit [Elliott]

Rob Elliott presented his reflector message regarding I_T nexus loss for NAKs or lack of credit. Several people objected to having the target time out on the initiator in this circumstance. Rob agreed to drop the proposal.

5.2 SAS Port layer rewrite (02-393) [Elliott]

Rob Elliott presented 02-393r0, SAS Port layer rewrite. In the process of incorporating the port layer into the SAS working draft, Rob found both editorial and technical changes he wants to make. The technical changes are detailed in the overview section of the proposal. Rob received input and agreed to revise the document. John Worden moved and Rob Elliott seconded that 02-393r1 (r0 as revised) be recommended for inclusion in SAS. The motion passed unanimously.

5.3 SAS SPC-3 Protocol Specific log page (02-394) [Elliott]

Rob Elliott presented 02-394r0, SAS SPC-3 Protocol Specific log page. Rob noted that both SAS and CAP will need to approve this proposal since it affects both SAS and SPC-3. He received input and agreed to defer consideration of his proposal.

5.4 CRC on Frame Header [Roberts]

Ron Roberts said he was planning to prepare a proposal on this topic. He noted that sorting of frames could be faster if there was a CRC that covered the addresses so that devices could begin processing a frame before the entire frame is received.

6. Review of Recommendations to the Plenary

John Lohmeyer noted that the following recommendations were made during this meeting:

- that 02-359r3 (r2 as revised) be recommended for inclusion in SAS. [4:3:2]
- that 02-393r1 (r0 as revised) be recommended for inclusion in SAS.

The following recommendation was made on the September 24th conference call:

- that 02-318r1 be recommended for inclusion in SAS.
- that 02-202r4 (r3 as revised) be recommended for inclusion in SAS.
- that 02-276r3 (r2 as revised) be recommended for inclusion in SAS.
- that we recommend to T10 that the SSP Task IU be changed to 28 bytes to match the command IU by removing the last 4 reserved bytes.

The following recommendation was made on the September 17th conference call:

- that a statement saying STP initiators shall not generate BIST frames be recommended for inclusion in SAS.

7. Meeting Schedule

SAS Protocol Working Group meetings are scheduled for:

Thursday-Friday, October 24-25, 2002 in Las Vegas in conjunction with the T13 meeting. Details to be posted to the T10 reflector.

Monday-Tuesday, November 4-5, 2002 commencing at 1:00 p.m. on Monday and ending at 5:00 p.m. on Tuesday in Huntington Beach, CA at the Hilton Waterfront Hotel (714-960-7873).

George Penokie agreed to host a SAS Protocol teleconference October 15th:

Tuesday October 15, 2002
11:00 am -- 2:00 pm EDT
10:00 am -- 1:00 pm CDT
9:00 am -- noon MDT
8:00 am -- 11:00 am PDT

USA Toll Free Number: 877-921-6914
Toll Number: +1-712-923-0332
Participant Passcode: 338024

WebEx Session: <http://seagate.webex.com/>
Meeting Name: SAS Protocol teleconference
Password: Carol21

An editing meeting is planned for October 3-4, 2002 in Houston, TX at HPQ. Rob Elliott will host this editing session. Please RSVP to Rob if you plan to attend.

8. Adjournment

The meeting was adjourned at 12:20 p.m. MDT on Tuesday, October 1, 2002.