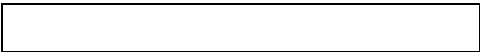


Accredited Standards Committee*
NCITS, Information Technology



Doc. No.: T10/00-284r1
Date: August 17, 2000
Project: SDV 1378-DT
Ref. Doc.:
Reply to: John Lohmeyer
Bill Ham

To: Membership of T10

From: John Lohmeyer, chair SDV working group
Bill Ham, Secy SDV working group

Subject: Approved minutes of T10 SDV working group on
July 10, 2000

Agenda

1. Opening remarks and introductions
2. Attendance and membership
3. Approve agenda
4. Document distribution
5. Review minutes of previous meeting
6. Review old action items
7. Discussions/presentations
 - 7.1 Expander addressing (auto vs fixed)
 - 7.1.1 Name that expander
 - 7.1.2 Expander and terminator issues
 - 7.1.3 Possible uses for using CEF
 - 7.1.4 Possible new expander communication proposal
 - 7.1.5 Alternate selection and communication protocol - Petty
 - 7.1.6 Expanded (multiline) addressing
 - 7.1.7 Expander communication scheme selection process
 - 7.2 Margining methods
 - 7.3 Topology discovery
8. SDV Rev 02 review
9. New Business
 - 9.1 Standard vs. Technical Report
10. Review action items
11. Next meetings
12. Adjourn

Results of Meeting

1. Opening remarks and introductions

John Lohmeyer led and hosted the meeting. He opened the meeting at 1:00 PM and thanked LSI Logic for approving the hosting of this meeting. Bill Ham took these minutes.

2. Attendance and membership

Attendance at plenary meetings does 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 but do not count toward minimum attendance for T10 membership.

The following people attended the meeting:

Name	S	Organization	Electronic Mail Address

Mr. Ron Roberts	A	Adaptec, Inc.	Ron_Roberts@adaptec.com
Mr. Vincent Bastiani	V	Adaptec, Inc.	bastiani@corp.adaptec.com
Mr. Bill Galloway	P	BREA Technologies, Inc.	billg@breatech.com
Mr. Robert C. Elliott	P	Compaq Computer Corp.	Rob_Elliott@compuserve.com
Dr. William Ham	A	Compaq Computer Corp.	bill_ham@ix.netcom.com
Mr. John Tyndall	A	Crossroads Systems, Inc.	jtyndall@crossroads.com
Mr. Titkwan Hui	V	Dallas Semiconductor	tk.hui@dalsemi.com
Mr. Nathan Hastad	P	General Dynamics	nathan.j.hastad@gd-is.com
Mr. George O. Penokie	P	IBM Corp.	gop@us.ibm.com
Mr. John Lohmeyer	P	LSI Logic Corp.	lohmeier@t10.org
Mr. William Petty	V	LSI Logic Corp.	william.petty@lsil.com
Mr. Jeffrey J. Gauvin	V	LSI Logic Corp.	jeff.gauvin@lsil.com
Mr. David Noeldner	V	LSI Logic Corp.	dave.noeldner@lsil.com
Mr. Sriram Srinivasan	V	LSI Logic Corp.	sriram.srinivasan@lsil.com
Mr. Bruce Trunck	V	LSI Logic Corp.	bruce.trunck@lsil.com
Mr. Pete McLean	P	Maxtor Corp.	pete_mclean@maxtor.com
Mr. Skip Jones	P	QLogic Corp.	sk_jones@qlc.com
Mr. Gene Milligan	P	Seagate Technology	Gene_Milligan@notes.seagate.com
Mr. Gerald Houlder	A	Seagate Technology	gerry_houlder@notes.seagate.com
Mr. Vit Novak	A	Sun Microsystems, Inc.	vit.novak@sun.com
Mr. Paul D. Aloisi	P	Texas Instruments	Paul_Aloisi@ti.com
Mr. Donald R. Getty	A#	Texas Instruments	donald_getty@ti.com

22 People Present

Status Key: P - Principal
A,A# - Alternate
O - Observer

*Operating under the procedures of The American National Standards Institute.

L - Liaison
V - Visitor

3. Approve agenda

John Lohmeyer moved that the agenda as shown above be approved. The motion passed without objection.

4. Document distribution

Documents are distributed electronically by means of the T10 web site: www.T10.org.

5. Review minutes of previous meeting

Bill Ham moved and John Lohmeyer seconded that the draft minutes as modified be approved from the last meeting. Motion passed without objection.

6. Review old action items

The action items from the last meeting were reviewed and the status is noted in the action items section.

7. Old Business

7.1 Review and Selection of an Expander Communication Proposal

The following three proposals were reviewed with the idea of making working group recommendations concerning which, if any, to recommend for inclusion in SPI-4.

7.1.1 Multi-line Addressing (99-250 & SDV-R02, 00-256r0)
[Lamers/Roberts]

Ron discussed the material in 00-256r0 which is the latest proposal for multiline addressing. 00-256r0 derives its content from 99-250 and SDV-R02 as well as containing original content.

This is one of the three present proposal that can do expander communications.

7.1.2 Alternate Selection and Communications Protocol (ASCP) (99-213)
[Petty]

Bill Petty went thru a modified version of the ASCP protocol.

7.1.3 Expander Control Protocol (00-257) [Lohmeyer]

John went through his ECP proposal.

After all three presentations were completed an attempt was made to compare and analyze the options

The following table was created:

Feature / Issue	00-256	00-257	99-213r1
Hw initiator impact	2	0	2
Hw target impact	0	0	0
Hw expander impact	10	5	2
Legacy compatibility	multibit issue	echo buffer required	NA
needs 16 bit path	yes	no	Yes
needs 16 bit device	yes	no	no
PPR re-negotiation required	yes	yes	no

A series of undocumented discussions relating to the software impact was conducted.

Motion, Skip Jones/Jerry Holder, that 99-213r1 be accepted as the basis for further development for expander communications. Motion, Penokie/Roberts, to amend the above motion to read "00-257" instead of "99-213r1". Motion, Milligan/Roberts, to amend the amended motion to read "00-256" instead of "00-257"

Voting results:

Motion to amend the amended motion fails 1/7/0

Motion to amend the motion fails 5/5/2 (requires a simple majority to pass)

Main motion (unamended) fails 5/5/2 (requires a simple majority to pass)

Motion, Penokie/Jones, to not further develop 00-256.

Motion passes 7/2/3.

7.2 Margin Control (99-264) [Roberts]

Ron reviewed 99-264r7. After much discussion no action was taken.

7.3 SDV working draft review [Roberts]

Due to lack of time this review was not conducted at this meeting.

7.4 Name that expander

The name of expanders that support expander communications is still not robustly accepted. The name CEF (controllable expanders with feedback) that was agreed at the last meeting has not been propagated into recent proposals thereby indicating that the name issue is still with us. This item should be kept on the agenda until a robust name is defined.

8. New Business

No new business was conducted.

9. Review action items

9.1 Action items from previous meetings

John Lohmeyer, along with Ron Roberts and others, to generate a full fledged proposal for the dynamic expander addressing protocol (00-257r0).

Status: done, renamed, and posted as 00-257r0

Bill Petty agreed to put out a new revision of 99-213r0 before the next meeting.

Status: done 99-213r1

Ron Robert to incorporate LSI logic comments into SDV.

Status: carried over

9.2 New action items from this meeting:

None

10. Next meetings

The next working group meeting will be requested for Thursday August 17, 2000 at 9:00 PM in Huntington Beach, CA. Monday, September 11, 2000 at 9AM to 5PM will also be requested.

11. Adjourn

The meeting adjourned at 7:00PM on Monday, July 10, 2000.