

Accredited Standards Committee
X3, Information Processing Systems

Doc. No.: X3T10/94-138r0
Date: June 21, 1994
Project: 1047D
Ref. Doc.:
Reply to: G. Penokie

To: Membership of X3T10
From: George Penokie and Larry Lamers
Subject: Minutes of X3T10 SCC Working Group Meeting - June 21, 1994

AGENDA

1. Opening Remarks
2. Attendance and Membership
3. Approval of Agenda
4. Report on last RAID Working Group
5. Update on proposed working draft
6. SDA Model (94-040r5) Penokie
7. SDA States and Types (94-041r5) Penokie
8. SDA Commands and Mode Pages (94-042r5)
9. RAID 5 support on Disk Drives (94-111r1) [Houlder]
10. Action Items
11. Meeting Schedule
12. Adjournment

Results of Meeting

1. Opening Remarks

George Penokie covered the meeting at 9:00 am, Tuesday, June 21, 1994. He thanked Jim Hamstra of Stanatek for hosting the meeting.

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

It was stated that the meeting had been authorized by X3T10 and would be conducted under the X3 rules. Working group meetings take no final actions, but prepare recommendations for approval by the X3T10 task group. The voting rules for the meeting are those of the parent committee, X3T10. These rules are: one vote per company; and any participating company member may vote.

The minutes of this meeting will be posted to the SCSI BBS and the SCSI Reflector and will be included in the next committee mailing.

George stated that this is the 20th meeting of the RAID study group and the 7th joint RAID Advisory Board/RAID working group meeting.

George stated that this is the first X3T10 SCC working group. The purpose of the group is to deal with interface issues related to using RAIDs. The study group will assess the issues and then formulate a strategy for dealing with them.

2. Attendance and Membership

Attendance at working group meetings does not count toward minimum attendance requirements for X3T10 membership. Working group meetings are open to any person or company to attend and to express their opinion on the subjects being discussed.

RAID Study Group Meeting Attendees

Attendee	Company	Email Address
Larry Lamers	Adaptec	ljlammers@aol.com
Jerry Fredin	AT&T/GIS	jerry fredin@wichitaks.ncr.com
Lee Hedtke	Conner Peripherals	
Allan Cole	Core International	73532.1636@compuserve.com
Bill Hutchinson	HP	hutch@boi.hp.com
George Penokie	IBM	gop@rchvmp3.vnet.ibm.com
David Fellingner	Mega Drive	dfellinger@u1201.megadrive.com
Gerry Houlder	Seagate Technology	gerry_houlder@notes.seagate.com
Jay Elrod	Seagate Technology	jay_elrod@notes.seagate.com
Markus Paschmann	Siemens EC B	

3. Approval of Agenda

The agenda developed at the meeting was approved.

4. Report on last RAID Working Group

Last RAID Working Group was held in Bellevue, WA. Several members of the RAID Advisory Board were present. George stated that the minutes of the Bellevue, WA meeting have been published on the SCSI Reflector.

5. Update on proposed working draft

George Penokie reported that he has started work on a proposed working draft for the SCC document. This working draft incorporates the addressing, model, states & types, and command documents that were developed by the study group.

George noted that a terminology change is in progress to remove 'lui' as it is confusing to folks outside the group. The thing is a logical unit; the address of the thing is logical unit number. The term 'lui' referred to the thing; these things are volume sets, redundancy groups, spares, peripheral device, and component device.

6. SDA Model (94-040r5) Penokie

Replace "issued to the SCA" with correct wording. It leaves the impression that only commands issued to a physical device would return the error and this is not the case.

7. SDA States and Types (94-041r5) Penokie

George reviewed the changes incorporated into the revision 5 document. A new state was added 'invalidated protected space' to indicate that the protected space is no longer intact. The not supported state reported the wording will be changed to indicate that it is not possible to configure the redundancy space.

DACL and ITTU states have been added.

8. SDA Commands and Mode Pages (94-042r5)

Two new commands, REPORT STATES service action and INSTRUCT C-LUI service action have been added.

The REPORT STATES SERVICE ACTION command uses the replacement wording for 'lui'. The command returns the all the state information for the logical unit.

The INSTRUCT C-LUI service action is a maintenance out that enables a host to turn the C-LUI on and off.

A new set of rebuild types (table 59) was included. Three options are defined that represent the agreement from the last meeting.

The verify lba check data was updated to combine the bit definitions into a field and clarified the actions.

A long discussion resulted in a change of definition for ITTU to state that the selected C_Lui is the reporting C_Lui.

George did a command by command review of the changes to the command set. The goal is to have a first draft of the assembled document at the next meeting.

9. RAID 5 support on Disk Drives (94-111r1) [Houlder]

Gerry Houlder presented a command set for supporting RAID 5. The command set requires that each disk drive support the initiator role. Functions within the commands support regeneration, including the XOR operations. As a result the host workload is reduced.

Gerry requested that everyone think about the error recovery operations and the depth needed.

10. Action Items

a)George Penokie to prepare a draft of the SCC document.

11. Meeting Schedule

The next meeting of the X3T10 SCC working group is planned for July 19, 1994 at the Sheraton Tara Wayfarer hotel in Bedford, NH. The meeting is scheduled to run from 9:00am - 5:00pm.

12. Adjournment

The meeting was adjourned at 5:00 pm. on Tuesday, June 21, 1994