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Draft Minutes
Automation/Drive Interface (ADI) Working Group
Ad Hoc Meeting
T10/08-196r0
16 April 2008
8:05am – 09:58am PDT

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1   Introductions:

Paul Suhler called the teleconference to order at 8:05am PDT. He thanked Quantum for hosting the teleconference.

2   Call for secretary [Suhler]:

Paul Suhler noted that ADI remains without a permanent secretary. He asked if anyone wished to volunteer to fill this role. No one volunteered, so Paul encouraged participants to consider taking up the role. Rod Wideman agreed to serve as secretary for this teleconference.

3   Approval of the agenda:

Paul Suhler reviewed the agenda with the group.

Kevin Butt made a motion for acceptance of the agenda as written. Curtis Ballard seconded the motion. The group approved the motion unanimously.

4   Attendance and Membership:

Paul Suhler discussed the attendance, membership, and voting rules for this meeting.

The listing below captures the attendance at this meeting:

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Mr. Noud Snelder                     V  BDT
Mr. Curtis Ballard                   A  Hewlett Packard Co.
Mr. Kevin Butt                       P  IBM Corp.
Mr. Geoffrey Barton                  V  Overland Storage
Dr. Paul Suhler                      P  Quantum Corp.
Mr. Paul Stone                       A  Quantum Corp.
Mr. Rod Wideman                      A  Quantum Corp.
Mr. Jon Allen                        A  Sun Microsystems
Mr. George Boasson                   AV Tandberg Storage

8 People Present

Status Key:  P    -  Principal
             A,A# -  Alternate
             AV   -  Advisory Member
             E    -  Emeritus
             L    -  Liaison
             V    -  Visitor
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5   INCITS Patent Policy:

Paul Suhler briefly discussed the INCITS patent policy and directed interested individuals to the T10 short summary at http://www.t10.org/patpol.htm. Paul Suhler also reviewed the rules around avoidance of anti-trust issues.

6   Approval of previous meeting minutes:

10 March 2008 meeting   08-151r1

Paul Suhler requested comments for the minutes of the 10 March 2008 meeting, 08-151r1. No one provided comments or corrections.

7   Review of action items:

07-060   Paul Suhler will revise 07-438r0 per Old Business item 9.3 of 07-477r0. *Complete* (07-438r1)

08-006   Rod Wideman will revise 08-021r0 per Old Business item 8.3 of 08-104r0. *Carryover*

08-007   Paul Stone to revise ADT-2r05 to change the receiver error state machine names as per business item 9.4. *Carryover*

08-008   Paul Suhler to revise and post 06-425r8 as per business item 9.6. *Complete* (08-147r0)

8   Old business:

8.1   ADC-3 Automation Device Serial Number subpage (08-021r0) [Wideman]

This item was deferred at the author's request.

8.2   ADT-2: SCSI Command IU to Initiator only port (07-438r1) [Suhler]

Paul Suhler reviewed this item with the group. The change noted in this revision was requiring the PR bit to be set to zero to avoid entering recovery. The result is that just the NAK is sent, and recovery is not entered.

Paul Suhler moved that 07-438r1 be approved for incorporation into ADT-2. Kevin Butt seconded the motion. In the absence of objections and abstentions, the motion passed unanimously.

Action item: Paul Stone to incorporate into ADT-2

8.3   ADT-2: Internet ADT (iADT) (07-469r2) [Suhler]

Paul Suhler led the working group through portions of the proposal.

Kevin Butt asked why a specific port number needs to be specified. Paul stated that sockets interfaces appear to not allow passive opens to specify a port number.

Curtis Ballard suggested that we note where multiple connections issues may exist, but not address them right now, in order to keep the proposal simpler. Kevin Butt wondered whether we were tied to a one-to-one "connection to IT_nexus" relationship. Do sequential connections (i.e., open/close) cause IT_nexus loss, or should we maintain the IT_nexus?

Paul Suhler suggested it may be simpler to not attempt to span IT_nexus across connection loss.

Kevin Butt and Paul Suhler noted that we should not try to map a TCP function to do something else.

The group noted that we would not attempt to use multiple connections in parallel as some form of trunking.

Kevin Butt suggested that we need to be able identify separate IT_nexuses (which would include use of serial port vs. Ethernet port). Curtis Ballard suggested that we not address multiple IT_nexus support in the first pass, but rather make sure that they can occur and be identified, but allow that multiple IT_nexuses could be rejected. Kevin sees as a requirement the ability to use the existing serial connection and use the Ethernet connection as desired (e.g., for selected operations). Curtis noted that being dual-ported does not necessitate supporting multiple-initiators. Rod Wideman noted that he expected multiple-initiator support to be needed.

Rod Wideman noted that he was concerned about precluding use of UDP, since use of TCP/IP may place a resource burden on some implementations. Further, he noted that modifications to ADT to align specifically with TCP may require undesirable implementation changes to existing ADT support. Kevin Butt noted that he thought we should select TCP or UDP as separate transport layers needing projects to specify them. The group agreed to table this question for now.

The group discussed the options for a connector, and whether we needed a single new connector for iADT that would include the sense and signal lines, or whether separate connectors would be suitable. Curtis Ballard noted that he would prefer that all required lines be included in a single connector (i.e., Ethernet, plus sense and signal), rather than Ethernet, plus sense and signal from a different connector.

Paul Suhler solicited feedback on the need for GbE, Sense(a), Reset(a) and Sense(d). Sense(d) didn't seem to generate much interest. We discussed the possibility of combining RS-422, sense, signal, and iADT into one single new connector, as suggested by Kevin Butt, per his understanding of what he thought Curtis had meant.

Paul Suhler raised the question of the need for Ethernet LEDs as part of the connector. Curtis Ballard noted that customers may expect them, based on common experience.

There wasn't interest expressed in having debug lines.

The group discussed the need to specify discovery. Rod Wideman stated that he felt it was outside the scope of ADT. Curtis Ballard suggested that an informative annex may be useful. The consensus seemed to be that discovery should be left out of ADT-2, and let discovery remain vendor-specific. Kevin Butt corroborated this view based on how other protocols were specified, and Curtis noted that discovery means were probably not SCSI-based.

Kevin Butt noted that IT_nexus information was needed in the frame header.

The remainder of the proposal was not reviewed due to lack of time.

8.4   *ADI: Features for ADC-3 and ADT-3 ([08-147r0](#)) [Suhler]*

This item was deferred at the author's request.

9   New business:

9.1   Error in ADC-3, 6.2.2.2.2 [Wideman]

Rod Wideman reported that an apparent error in ADC-3, sub-clause 6.2.2.2.2 had been identified. The text following table 42 in 6.2.2.2.2 uses the term RELATIVE TARGET PORT field, which instead seems that it should be PRIMARY PORT INDEX field. The group agreed that the change was warranted. Guidance was given to Paul Stone to correct it as an editorial change.

Action item: Paul Stone to make the change to ADC-3.

10   Next meeting requirements:

Subject to approval by the T10 Plenary, the group will hold a meeting on 5 May 2008 during T10 plenary week in San Jose, California beginning when the SMC-3 working group adjourns and concluding at 6:30 PM PDT.

11   Review new action items:

08-009   Paul Stone to incorporate 07-438r1 into ADT-2.

08-010   Paul Stone to modify ADC-3 per new business item 9.1 in 08-196r0 to correct the use of RELATIVE TARGET PORT field to be PRIMARY PORT INDEX field.

12   Adjournment:

Rod Wideman made a motion for adjournment. Curtis Ballard seconded the motion. The group passed the motion unanimously. Paul Suhler adjourned the group at 09:58am PDT.