Draft Minutes
Automation/Drive Interface (ADI) Working Group
Ad Hoc Meeting
T10/07-319r0
9 July 2007
9:00 AM – 1:00 PM MDT

1   Introductions:

Paul Suhler called the meeting to order at 9:00 AM MDT. He thanked LSI Logic for hosting the meeting.

2   Approval of the agenda:

Paul Suhler reviewed the agenda with the group. Michael Banther requested addition of a discussion item regarding NIST requirement on IV collisions.

Kevin Butt made a motion for acceptance of the agenda as modified. Michael Banther seconded the motion. In the absence of objections or abstentions, the group approved the modified agenda unanimously.

3   Attendance and Memebership:

Paul Suhler briefly discussed T10 attendance and membership rules as they apply to this meeting.

The listing below captures the attendance at this meeting:

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          Name                        S           Organization
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Mr. Noud Snelder                     V  BDT
Mr. Curtis Ballard                   V  Hewlett Packard Co.
Mr. Michael Banther                  A  Hewlett Packard Co.
Mr. Kevin Butt                       A  IBM Corp.
Mr. Geoffrey Barton                  V  Overland Storage
Mr. Paul Entzel                      P  Quantum Corp.
Dr. Paul Suhler                      A  Quantum Corp.

7 People Present

Status Key:  P    -  Principal
             A,A# -  Alternate
             AV   -  Advisory Member
             E    -  Emeritus
             L    -  Liaison
             V    -  Visitor
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4   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.

5   Approval of previous meeting minutes:

7 May 2007 meeting   07-206r1

30 May 2007 teleconference   07-261r0

20 June 2007 teleconference   07-283r0

Paul Suhler requested corrections for the minutes of the 7 May 2007 meeting and the 30 May 2007 and 20 June 2007 teleconferences, 07-206r1, 07-261r0, and 07-283r0 respectively.

Michael Banther made a motion for acceptance of 07-206r1, 07-261r0, and 07-283r0 as written. Paul Entzel seconded the motion. In the absence of objections or abstentions, the group approved the motion unanimously.

6   Review of action items:

06-001   Michael Banther will write a proposal to place all of the IU statements associated with entry into a state in the state description sub-clause and to remove such statements from the transition sub-clauses (remembering to rationalize incomplete statements). This proposal will also change the description of each state machine to clearly indicate what state it is in upon activation. He will produce this proposal for the September or November 2004 meeting. *Closed*, 07-321r0.

07-014   Michael Banther will bring in a proposal to resolve ADC-2 letter ballot comment HPQ-269. *Closed*, 07-292r0.

07-039   Rod Wideman will bring in a proposal to resolve ADC-2 letter ballot comment HPQ-159. *Closed*, 07-303r0.

07-040   Curtis Ballard will bring in a proposal to resolve ADC-2 letter ballot comment HPQ-198. *Closed*, 07-289r0.

07-042   Curtis Ballard will bring into the July ADI-2 working group meeting a model clause document for the features proposed in 07-164r0. *Closed*, deferred to ADC-3.

07-044   Michael Banther will revise 07-174r1 per discussion item 5.3 of 07-283r0. *Closed*, 07-174r2.

07-045   Kevin Butt will revise 07-173r1 per discussion item 5.2 of 07-283r0. *Closed*, 07-173r2.

7   Old business:

7.1   *ADC-2 Working List for ISV feedback (SMC/SSC/ADC/SPC) (05-315r3) [Butt]*

At the author's request, the working group deferred discussion of this item until the September, 2007 meeting.

7.2   *ADC-2 Letter Ballot Comment Resolution (06-475r5) [Entzel]*

Paul Entzel led the group through ADC-2 letter ballot comment resolution.

Paul Entzel pointed out the one remaining letter ballot comment. It's HPQ-117 which asks if sense data masking applies to unload operations as well as load operations. The working group agreed that it only applies to load operations as currently specified.

Paul Entzel made a motion to recommend to the plenary that 06-475r5 as revised resolves all letter ballot comments against ADC-2 and that ADC-2 revision 8 be forwarded to INCITS for

first public review. Michael Banther seconded the motion. In the absence of objections or abstentions, the group approved the motion unanimously.

7.3   *ADI: Features for ADC-2 and ADT-2 ([06-060r5](#)) [Suhler]*

Paul Suhler reviewed the feature list for ADC-2 and ADT-2 with the group. He noted that Michael Banther has two work items for ADT-2 outstanding.

7.4   *ADI: Features for ADC-3 and ADT-3 ([06-425r6](#)) [Suhler]*

Paul Suhler reviewed the feature list for ADC-3 and ADT-3 with the group. The group did not identify any changes. The working group briefly reviewed the project proposal for ADC-3 and ADT-3.

8   New business:

8.1   *ADC-2 Resolve HPQ-269 and QTM-140 ([07-292r0](#)) [Banther]*

Michael Banther introduced the proposal. It changes the sentence from 'DT device' to 'automation application client' so that the correct entity is changing the MPI and PORT IDENTIFIER fields.

Paul Entzel questioned whether this change adequately addresses QTM-140. Specifically he noted that Rod Wideman has requested that the sentence use 'port identifier' in place of 'the MPI field or PORT IDENTIFIER field'. Michael agreed to use 'DT device primary port identifier'.

Michael Banther made a motion to accept [07-292r0](#) as revised as resolution for ADC-2 letter ballot comments HPQ-269 and QTM-140. Goeff Barton seconded the motion. In the absence of objections or abstentions, the group approved the motion unanimously.

8.2   *ADC-2 LB Comment HPQ-198 Clarify Setting INTFC bit ([07-289r0](#)) [Ballard]*

Curtis Ballard introduced the proposal. It seeks to remove some ambiguity about setting the INTFC bit in the VHF data log parameter to zero.

Paul Entzel objected to the text that sets the INTFC bit to zero when an I_T nexus loss or logical unit reset occurs. He reasoned that the lack of unit attentions when the automation port retrieves this information using the ADT fast access protocol means that the automation port has no visibility to an I_T nexus loss or logical unit reset. Hence the automation port will not have the information necessary to know that it should issue an ADT IU to retrieve the log parameters. Paul also noted that the proposed setting of the INTFC bit to zero as a result of a logical unit reset does not make sense as this bit reflects information about a port. Hence the bit value should persist across logical unit reset events. The group debated alterations to the proposed text to address these concerns. Eventually the group settled on some substantially modified text.

Curtis Ballard made a motion to accept [07-289r0](#) as revised as resolution for ADC-2 letter ballot comment HPQ-198. Paul Entzel seconded the motion.

Paul Suhler asked if the text 'hard reset condition' is correct in the SCSI architecture. Michael Banther replied that SAM-4 does not define a hard reset event, only a hard reset condition.

In the absence of objections or abstentions, the group approved the motion unanimously.

8.3   *ADI: ADC-2 Letter Ballot Comment HPQ-159 Resolution ([07-303r0](#)) [Wideman]*

In Rod Wideman's absence, Paul Suhler introduced the proposal.

Michael Banther requested changing 'all' to 'any' in the proposed new sentence. Paul Entzel suggested removing all of the text after 'unit attention condition' but backed off after a small amount of discussion. The group accepted Michael's suggested change.

Paul Entzel made a motion to accept [07-303r0](#) as revised as resolution for ADC-2 letter ballot comment HPQ-159. Michael Banther seconded the motion. In the absence of objections or abstentions, the group approved the motion unanimously.

8.4   *ADT-2 Negotiation state machine ([07-321r0](#)) [Banther]*

Michael Banther introduced the proposal. It seeks to clarify the behaviour of the Negotiation sub-state machine in ADT-2. He walked the group through the proposal from the top down receiving various comments.

Michael Banther agreed to bring back a revised proposal based on comments received.

8.5   *ADC-3 NIST requirement regarding IV collisions [Banther]*

Michael Banther informed the group about a notification he has received about a requirement from NIST regarding IV collisions. The requirement for LTO translates, in HP's opinion, translates into a requirement on the number of records written. The URL is http://csrc.nist.gov/publications/drafts/draft-SP-800-38D/NIST_SP_800-38D_June_2007_for_public_comment.pdf.

Paul Entzel raised a concern about how to count records read. Is each unique record counted only once or each time it is read? He also noted that 3rd party key management may occur over a primary port as well as out-of-band. Hence HP's desire to host the log parameter(s) in the ADC device server may limit the usage possibilities unnecessarily. Paul also stated a preference that the device server clear the log parameter on unloads. Finally Paul noted that some implementations cannot track any information for a given key value once the device server clears the key. Hence any proposal should not include retaining the parameter value on a per-key basis.

9   Next meeting requirements:

Subject to approval by the July 2007 T10 Plenary, the group will hold a meeting on 17 September 2007 during T10 plenary week in Vancouver, British Columbia beginning at 9:00 AM PDT and concluding at 1:00 PM PDT.

10   Review new action items:

07-046   Michael Banther will revise [07-292r0](#) per New Business item 8.1.

07-047   Curtis Ballard will revise [07-289r0](#) per New Business item 8.2.

07-048   Rod Wideman will revise [07-303r0](#) per New Business item 8.3.

07-049   Paul Entzel will revise [06-475r5](#) per Old Business item 7.2.

07-050   Paul Entzel will issue ADC-2 revision 8 containing all resolved letter ballot comments from [06-475r5](#) as revised.

07-051   Michael Banther will revise [07-321r0](#) per New Business item 8.4.

11 Adjournment:

Michael Banther made a motion for adjournment. Kevin Butt seconded the motion. The group passed the motion unanimously. Paul Suhler adjourned the group at 12:36 PM MDT.