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Draft Minutes
Automation/Drive Interface (ADI) Working Group
Ad Hoc Teleconference
T10/04-261r0
12 August 2004
7:30 AM – 9:30 AM PDT

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1. Introductions: Group

   Paul Suhler called the meeting to order at 7:35 AM PDT on 12 August 2004. He thanked ADIC for hosting the meeting. A table of the attendees appears at the end of these minutes.

2. Approval of the agenda: Paul Suhler

   Paul Suhler discussed the order of the discussion items. After some discussion, the group agreed to re-order the IBM proposals ahead of the ADC letter ballot comment resolution.

   Kevin Butt made a motion for acceptance of the modified agenda. Rod Wideman seconded the motion. In the absence of objections or abstentions, the group passed the motion unanimously.

3. Comments on previous meeting minutes: Paul Suhler

12 July 2004 meeting	04-199r0
29 July 2004 teleconference	04-244r0
5 August 2004 teleconference	04-253r0
9 August 2004 teleconference	04-256r1

   Paul Suhler requested comments for the minutes of the 12 July 2004 meeting, the 29 July 2004 teleconference, the 5 August 2004 teleconference, and the 9 August 2004 teleconference – 04-199r0, 04-244r0, 04-253r0, and 04-256r1 respectively. No one provided comments.

4. Review of action items: Michael Banther

   a. Kevin Butt will investigate writing a proposal against IBM's ADT letter ballot comment 27. *Carryover*

   b. 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. *Carryover*

   c. Paul Suhler will write a proposal against Seagate ADT letter ballot comment 23. *Carryover*

   d. David Hawks will write a proposal to allow a nonzero first burst length field for all commands to leave determination of data direction with the target port without using direction bits. *Carryover*

e. Kevin Butt to bring in proposal for ADC Letter Ballot comments IBM Butt – 1 & IBM Butt - 2 (Drive Dump). *Carryover*

f. Rod Wideman write a proposal for ADC Letter Ballot comment ADIC-148. *Carryover*

g. Rod Wideman write a proposal for ADC Letter Ballot comment ADIC-50. *Carryover*

h. Michael Banther will take a proposal into CAP to add a 'V' to Table C.2 in SPC-3 for op-code 9Fh. *Closed*

i. Michael Banther will bring in a proposal against ADT mandating response with NAK Status code of 43h upon reception of a non-link services IU with Frame Number equal to zero. *Closed*

j. Paul Suhler will add consideration of the interaction between the VHF Data WRTP bit and WORM cartridges to 03-133r8. Reference: ADC letter ballot 04-197r1, comment HP-159. *Carryover*

k. Paul Suhler will add consideration of making the Device Statistics Log page parameters visible via the Target Logs W-LUN into 03-133r8. *Closed*

l. Kevin Butt will generate two proposals, one for CAP and one for ADC (reference ADC letter ballot 04-197r1, comment HP-139). The CAP proposal will add Service Action In/Out commands to support Set/Get Time. The ADC proposal will add new command references for these commands to ADC. *Carryover*

m. Michael Banther will generate a proposal to add sub-clauses to ADT indicating that it does not support mode pages 02h, 18h, or 19h (reference ADC letter ballot 04-197r1, comment HP-182). *Closed*

5. Discussion items:

a. ADT: Proposed response to LB Comment IBM-48 (04-231r0) [Butt].

Kevin Butt led the group through the proposal.

Michael Banther raised a concern about the proposed text describing state N5: Login Complete. Matthew Bondurant agreed that the text needs to describe the acknowledgements that go with the Port Login IU's. Paul Entzel clarified the transitions from state N3: Accept ACK Sent to N5 and N4: Agreed to N5. Kevin agreed to strike the first sentence in 4.3.3.8 as the existing transition descriptions for N3 to N5 (ADTr12, 4.3.3.6.2) and N4 to N5 (ADTr12, 4.3.3.7.3) cover the ground.

Paul Suhler asked if the delay state really belongs in the T-state machine. Paul Entzel and Matthew Bondurant believe that it does belong there.

The group debated if N5: Login Complete is now a transitional state. Paul Suhler suggested that it might not be necessary. Rod Wideman asked how the machine would ever leave N5 and Paul Entzel replied that the transition from P1: Login to P2: Logged In will destroy the N sub-state machine. Paul Entzel and Matthew Bondurant explored moving the N5 functionality to the T sub-state machine or up into the P state machine. They discovered text in ADTr12 4.3.2.3.3 that already requires setting the port's operating parameters to their negotiated values on transition from P1 to P2. Based on this finding, Paul Entzel suggested that Kevin move the sending of the Process Login Complete message to N3 (ADTr12, 4.3.3.6.2) and N4 (ADTr12, 4.3.3.7.3), removing all need for N5. Paul Suhler voiced support for this change. Kevin agreed to make these changes.

The group noted that Kevin Butt's proposal does not indicate the state of the T-state machine upon creation. Some searching found that all of the sub-state machines suffer from this problem. Michael Banther agreed to add this problem to the ones he will correct under action item (b).

Paul Entzel pointed out that the T-state machine, upon entry into T0: Entering, needs to start a timer. Kevin Butt agreed to add the necessary text.

The group discussed the text for 4.3.4.x.1 State Description and agreed that it should not mention the whether the port can receive IU's or not. The T-state machine does not affect reception.

The group moved on to discussion of 4.3.4.x.2 Transition T0: Entering to T1: Active. Paul Suhler asked about the intent of the phrase 'valid information unit'. Kevin Butt replied that he wants to prohibit corrupt and mal-formed frames. He agreed to change the text to reference ADTr12, 4.6.1.3.

Kevin Butt made a motion for incorporation of 04-231r0 as revised into ADT. Paul Suhler seconded the motion. In the absence of objections or abstentions, the group passed the motion unanimously.

b. ADC: Proposed response to LB Comment Quantum 104 (04-228r0) [Butt].

Kevin Butt led the group through the proposal.

Paul Entzel and Matthew Bondurant questioned the purpose of the LC bit. If the DT device has an initiator/target port, does it set LC if it successfully logs in to another device's target port? All agreed that successful completion of at least one other initiator logging into the DT device sets LC. Kevin agreed to change the text and the group proceeded to wordsmith the LC bit description.

Paul Entzel pointed out that the port will exit and enter MONITORING state several times after completing LIP in a loop topology. Matthew Bondurant supported Paul's point. Kevin Butt agreed to strike the text about the Loop State Machine being in the MONITORING state.

Matthew Bondurant sought assurance that PIC will reset to zero if the port re-enters LIP. Kevin suggested adding text qualifying that PIC will only equal one after LIP completes and before reception of the next LIP primitive. Several people pointed out that Kevin's suggestion doesn't cover loss of synchronisation. The group debated various alternatives. Eventually we agreed on wording for setting PIC to zero.

Kevin Butt made a motion for incorporation of 04-228r0 as revised into ADT. Paul Suhler seconded the motion. In the absence of objections or abstentions, the group passed the motion unanimously.

c. ADI - ADC Letter Ballot comment discussion items (04-197r1) [Wideman].

Rod Wideman led the group through resolution of ADC letter ballot comments.

d. ADT Non-Link Service Frames With Zero Frame Number (04-258r0) [Banther].

The group did not discuss this item due to lack of time.

e. ADT Mode Pages Not Supported (04-259r0) [Banther].

The group did not discuss this item due to lack of time.

6. Unscheduled business:

No one raised unscheduled business.

7. Next meeting requirements: Paul Suhler

The working group will hold a teleconference on Monday, 16 August 2004 starting at 8:00 AM and concluding at 10:00 AM PDT. HP will host.

The working group will hold a teleconference on Thursday, 19 August 2004 starting at 7:30 AM and concluding at 9:30 AM PDT. IBM will host.

The working group will hold a teleconference on Monday, 23 August 2004 starting at 8:00 AM and concluding at 10:00 AM PDT. Certance will host.

Paul Suhler will try to schedule further conference calls before the next T10 week. The actual number will depend on availability.

The group will hold a meeting 13 and 14 September 2004 during T10 plenary week in Nashua, New Hampshire beginning at 9:00 AM on 13 September and concluding at 10:00 AM on 14 September.

8. Review new action items: Michael Banther

a. Kevin Butt will revise 04-231r0 per discussion item (a).

b. Paul Entzel will incorporate 04-231r0 as revised into ADT.

c. Kevin Butt will revise 04-228r0 per discussion item (b).

d. Rod Wideman will incorporate 04-228r0 as revised into ADC.

9. Adjournment: Group

Michael Banther made a motion for adjournment.   Kevin Butt seconded the motion. The group passed the motion unanimously. Paul Suhler adjourned the group at 9:30 AM PDT.

Attendees:

Name	Organization	E-mail
Rod Wideman	ADIC	rod.wideman@adic.com
Paul Suhler	Certance	paul.a.suhler@certance.com
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