

TO: T10 Membership
FROM: Paul A. Suhler, Quantum Corporation
DATE: 14 September 2009
SUBJECT: T10/08-147r5, Features for ADC-3 and ADT-2

06-425 Revision 0:

- Passthrough bridging
- Progress indication
- Utilizing physical device model

06-425 Revision 1:

- Fast Access over non-ADT transports
- SAM-4 and SPC-4 compliance

06-425 Revision 2:

- Clarify support for security protocol parameters.
- Make usage of device server and logical unit consistent.
- Log subpages.

06-425 Revision 3:

- Added features deferred to ADC-3 during ADC-2 letter ballot comment resolution.

06-425 Revision 4:

- New task management functions.
- ADC-2 UML diagrams.
- Remove ADC-2 note on not supporting reservations.

06-425 Revision 5:

- PREVENT ALLOW MEDIUM REMOVAL command behavior in ADI bridging.

06-425 Revision 6:

- Automation control of encryption performed by data transfer device.

06-425 Revision 7:

- Transport of ADT over Ethernet.

06-425 Revision 8:

- Moved Max ACK offset vs baud rate negotiation from ADT-2.

08-147 Revision 0:

- Updated assignments and progress.

08-147 Revision 1:

- Updated item 9.
- Item 15 dropped.
- Item 16 completed.

08-147 Revision 1:

- Updated item 9.

08-147 Revision 2:

- Item 8 completed.
- Item 9 completed.
- Item 11 assigned.
- Item 12 assigned.

08-147 Revision 3:

- Item 11 completed.
- Item 14 completed.

08-147 Revision 4:

- Item 2 to Suhler.
- Item 5 to Suhler.

- Item 6 to be investigated by Butt.
- Item 17 added and assigned to Ballard.

08-147 Revision 5:

- Changed title from ADT-3 to ADT-2 to reflect cancellation of ADT-3 project.
- Item 5 updated
- Item 7 marked as done.
- Item 18 added.
- Item 19 added.

General

In the development of the second generation Automation Drive Interface standards, ADC-2 and ADT-2, a number of concepts were discussed which were of insufficient urgency to include in the first generation standards. This document lists those concepts and the affected standards, as well as the documents and meeting minutes which present the most-fully developed presentation of the concepts.

Status of Items

Unassigned
Assigned
Completed
Dropped

Number	Feature	Affected Standards		Priority	Proposal documents	Minutes
		ADC-3	ADT-2			
1	Bridging Reservations	X			06-261r1, section 3.1	12 Sep 2006 WG meeting (06-401r1) item 5.4. Also ADC-2 LB comment HPQ-91.
2	RMC device server acquisition of automation device's worldwide name and the DT device's element address. Assigned to Suhler	X			Requested by CA in 05-315r2, section 3.1.7; CA comment #4. T10/09-244r1 (element address only)	12 Sep 2006 WG meeting (06-401r1) item 5.5
3	Define operations in terms of physical device model Benefit not clear. Not to be done for ADC-3.	X			T10/049r6	12 Sep 2006 WG meeting (06-401r1)
4	Define transport of Fast Access protocol over transports other than ADT. Dropped in favor of using iADT.	New Standard				6 Nov 2006 WG meeting (06-490r0)
5	SAM-4 and SPC-4 compliance, including: <ul style="list-style-type: none"> • Log subpages • Change Identification descriptors to designation descriptors Log pages assigned to Suhler	X	X		<ul style="list-style-type: none"> • Log subpages: T10/09-271r0 • Designation descriptors: 	Nov 2006 WG meeting (06-490r0); 31 Jan 2007 WG teleconference meeting and ADC-2 letter ballot comments HPQ-181, etc.

Number	Feature	Affected Standards		Priority	Proposal documents	Minutes
		ADC-3	ADT-2			
6	Make usage of “device server” and “logical unit” consistent. Butt to investigate the distinction.	X				31 Jan 2007 WG teleconference meeting and ADC-2 letter ballot comment QTM-42
7	Clarify support for security protocol parameters This has already been added to ADC-3.	X				31 Jan 2007 WG teleconference meeting and ADC-2 letter ballot comments HPQ-137 and QTM-48
8	Add Port_Name and Node_Name to DT Device Status log page Fibre Channel port status data. Assigned to Suhler.	X			08-226r1 approved 07/14/2008.	12 March 2007 WG meeting minutes (07-107) and ADC-2 letter ballot comment HPQ-206 (06-475r3).
9	Add QUERY TASK SET and QUERY UNIT ATTENTION task management functions to SCSI Encapsulation protocol Assigned to Suhler. Add only QUERY TASK SET.		X		07-066r0, 07-067r0 08-148r1 approved 07/14/2008.	14 Mar 2007 CAP WG minutes (07-116r0) items 4.3 and 4.4. 5 May 2008 ADI WG minutes (08-223r0).
10	Add UML diagrams to device server interaction clause.	X				18 Apr 2007 ADI-2 WG minutes, item 5.1, (07-187r0) and ADC-2 letter ballot comment HPQ-61.
11	Remove explanatory note about not supporting reservations from the device server interaction clause. Assigned to Suhler 07/14/2008.	X				18 Apr 2007 ADI-2 WG minutes, item 5.1, (07-187r0) and ADC-2 letter ballot comment IBM-19.
12	Define processing of PREVENT ALLOW MEDIUM REMOVAL command by local SMC device server 2009/05/04: Requested proposal. Removed from agenda pending proposal.	X				7 May 2007 ADI-2 WG minutes (07-206r0), item 5.2. 4 May 2009 ADI-2 WG minutes (09-172r0)

Number	Feature	Affected Standards		Priority	Proposal documents	Minutes
		ADC-3	ADT-2			
13	Automation control of encryption performed by data transfer device. Complete in ADC-3 and SSC-3	X			08-029r2 (ADC-3 r0b) 07-361r6 (SSC-3)	7 May 2007 ADI-2 WG minutes (07-206r0), item 6.3. 30 May 2007 ADI-2 WG minutes (07-261r0), item 5.3.
14	Transport of ADT over Ethernet Assigned to Suhler.		X		07-469, 08-409, 09-074r0, ADT-2 r6	17 September 2007 ADI-2 WG minutes (07-405r0) item 8.4. Closed 09-074r0 approved 4 March 2009, minutes 09-091r0, item 9.2.
15	Raise Max ACK Offset during negotiation as baud rate is lowered [Deferred from ADT-2 to ADT-3 by Banther per e-mail 6 November 2007] Assigned to Ballard. Dropped; no change to standard is needed.		X			12 September 2005 ADI-2 WG meeting.
16	In 6.2.2.2.2, change RELATIVE TARGET PORT field name to PRIMARY PORT INDEX? Assigned to Wideman.	X			Editorial ADT-2 r0b	Devin Armstrong e-mail 08 January 2008 (below). 16 April 2008 WG minutes (08-196r1) item 9.1
17	Reconcile SSC-3 changes from "data" to "logical block" Assigned to Ballard; will wait until SSC-3 changes are available.	X				SSC-3 WG teleconference 2009/07/08 ADI WG meeting 2009/07/13, item 9.3.
18	Align ADC-3 usage of "medium" and "volume" with changes to SSC-3. Assigned to Suhler.	X			09-275r0	SSC-3 WG meeting 2009/07/14
19	Decide whether to incorporate GOOD WITH SENSE status and related definitions.	X				T10/09-099r1 (SAM-5/SPC-4 proposal)

Other References

This section documents requests that are not listed in meeting minutes or T10 documents.

Item 16 above

From: Devin Armstrong

To: Rod Wideman
Sent: Tue Jan 08 09:44:46 2008
Subject: typo in ADC-2 r8

I believe you said back in July that ADC-2 is done. The T-10 drafts page doesn't indicate it so may the published standard can still have a correction or two. In any case I believe this needs to be corrected for ADC-3.

In sub clause 6.2.2.2.2 there's a paragraph that reads:

"The PROTOCOL IDENTIFIER field indicates the type of protocol supported by the DT device primary port (see SPC-3).

For the MODE SELECT command, if the protocol identifier specified by the PROTOCOL IDENTIFIER field does not match the protocol of the target port specified by the RELATIVE TARGET PORT field, the device server shall terminate the command with CHECK CONDITION status with the sense key set to ILLEGAL REQUEST and the additional sense code set to INVALID FIELD IN PARAMETER LIST."

I believe "RELATIVE TARGET PORT" should be changed to "PRIMARY PORT INDEX" since the field in byte 0 of the DT device primary port descriptor (Table 37) was renamed.

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