

To: INCITS Technical Committee T10
 From: Kevin Butt
 Date: Wednesday, September 24, 2008 3:06 pm
 Document: T10/08-392r0 — IBM Feedback to 07-469r8 (iADT)



Revisions

08-392r0 (24 September 2008) Initial revision

Introduction

IBM has had more internal discussion on the latest iADT proposal (07-469r8).

Feedback

- 1) There needs to be a mapping of iADT to TCP socket functions just like we map ADT to SAM in clause 8. SCSI Application Layer.
- 2) In Table 3 - applicability of NAK IU status codes, REJECTED, PORT IS LOGGED OUT and NEGOTIATION ERROR are needed because we do need logins.
- 3) There are Editorial Notes on page 6 that seem like it should be put into the changes section.
- 4) Figure 9 - iADT port example makes us ask the questions:
 - A) When a listen() is in effect on the automation device and port B does a connects does the connection belong to Port A or Port C? How is it known?
 - B) When a connection is closed is a new listen() required or is the original listen still in effect?
- 5) There is confusion in the statement to renumber figures 5-8 to 11-14. When this is stated then later in 4.10.1 figure 13 is referenced but it is not figure 13 that is being referenced, because you are later renumbering figure 9 to 15. For the proposal you should leave the figure numbering as is and make an editorial note that simply states that the editor shall renumber figures appropriately. That way we don't get this confusion about which figure is being referenced.
- 6) Figure 18a - Protocol services for establishing a connection between iADT ports brings out that it needs to be clear what is abstracted and what is specifics. For this figure there are more communications than shown (e.g. right - left - right).
- 7) Additionally can multiple connections be passed back up the stack without a disconnect?
- 8) In the note on the bottom of page 18, first line should be "...pair of ADT serial interconnect ports when the sense_a signal is asserted."
- 9) Clause 6.2 is not clear how it maps into TCP.
- 10) 6.2.1 first paragraph, last sentence "One ADT port may establish not more than one concurrent connection" - This implies that a drive cannot open a connection while it is connected. What about the race conditions between, for example, connect() and accept()?
- 11) For Service Response "Connect" an OUT parameter of connection is listed. However, a connection is not created immediately. At this time it is not known what the new socket and connection will be. What happens in TCP is:
 - 1) Socket();
 - 2) bind(); then
 - 3) connect(). Connect will either block or loop until successful then it will generate a connected service indication. We do not see how a connection can be a parameter.
- 12) Listen service request has the same issue with the connection parameter as does the Connect service request.
 - 1) socket()
 - 2) bind()
 - 3) listen()
 - 4) accept(). Accept will wait somehow until it needs to complete and then will generate a Connected service request.
- 13) Accept() returns IP & Port number of remote port. Is this intended to be passed up the stack?
- 14) Do we need a service request to stop listening?

- 15) Connected service indication. This should also have an out paramter of Local port. There needs to be some way to know which port sent the connected service request. There could be a library trying to connecto to multiple drives or something else like that.
- 16) 6.2.4 Send service response has some failures. There is not recovery listed. In fact the device server or ports behavior for each failing service response needs to be clearly listed.
- 17) 6.2.7 Close service request. Is this intended to be the disconnect from Fig 20a? If so, it should be renamed.
- 18) 6.2.8 Closed service indication. s/b Disconnected.
- 19) In 6.2.8 first paragraph, last sentence "...Close Event...". There is no "Close" event in the port state machine. Is this intended to force a login? Does it force a transition to P3: Logged Out? We do not like this as it is the login duration question and we believe it should not be tied to the login.
- 20) Table x+2. This does not work if connection is a socket.
- 21) Table x+5. Buffer row, "...previous incovation of the Receive service request." Should clarify that it is the last one that got OK status.
- 22) Table y and table y+1. "Connection" can not be part of these service requests. Connection is in the Connected service requeust.