T10/04-077r0

To	**From**	**Subject**	**Date**
INCITS T10 Committee	Michael Banther, HP	ADT End of Exchange	01 March, 2004

Introduction

During discussion of item (c) at the 23 February 2004 ADI Working Group teleconference, the group agreed to change the criteria for ending an exchange (see 04-066r0). At present some exchanges end upon transmit/receipt of an Acknowledgement IU whilst others end only upon transmit/receipt of an ACK IU or a NAK IU with PR equal to zero. The group agreed to adopt transmission/reception of an ACK IU or a NAK IU with PR equal to zero as the terminating criteria for all exchanges.

This proposal sets out the text changes in ADT to implement the agreed behaviour.

Existing Text

6.5.9.2 Simple link service exchange lifetime

Port logout IUs, Pause IUs, and NOP IUs are sent in simple exchanges. A simple exchange begins in the sending port with the transmission of the IU and ends with the reception of the corresponding Acknowledgement IU. A simple exchange begins in the receiving port with the reception of a valid IU and ends with the transmission of the Acknowledgement IU.

7.1.7 SCSI encapsulation exchange lifetime

A SCSI encapsulation exchange begins in an initiator port after the port transmits a SCSI Command IU or a SCSI Task Management IU. A SCSI encapsulation exchange begins in a target port after the port receives a SCSI Command IU or a SCSI Task Management IU.

A SCSI encapsulation exchange ends in an initiator port after:

a) The port receives a SCSI Response IU for that exchange and sends an ACK IU in response to it;
b) the port transmits a SCSI Task Management IU containing a task management request aborting the exchange and receives a SCSI Response IU with a response code value of COMMAND OR TASK MANAGEMENT FUNCTION COMPLETE for the task management request; or
c) a nexus loss occurs.

A SCSI encapsulation exchange ends in a target port after:

a) the port transmits a SCSI Response IU for that exchange and receives an ACK IU in response to it;
b) the port receives a SCSI Task Management IU containing a task management request aborting the exchange and transmits a SCSI Response IU with a response code value of COMMAND OR TASK MANAGEMENT FUNCTION COMPLETE for the task management request;
c) a hard reset occurs; or
d) a nexus loss occurs.

7.2.7.4 AER Data exchange lifetime

AER data exchanges are simple exchanges. The exchange begins in an ADT port in a DTD with the transmission of the IU and ends with the reception of the corresponding Acknowledgement IU. A simple exchange begins in an ADT port in an automation device with the reception of a valid IU and ends with the transmission of the corresponding Acknowledgement IU.

Proposed Text

6.5.9.2 Simple link service exchange lifetime

Port logout IUs, Pause IUs, and NOP IUs are sent in simple exchanges. A simple exchange begins in the sending port with the transmission of the IU and ends with the reception of the corresponding ACK IU or NAK IU with the PR bit set to zero. A simple exchange begins in the receiving port with the reception of a valid IU and ends with the transmission of the corresponding ACK IU or NAK IU with the PR bit set to zero.

7.1.7 SCSI encapsulation exchange lifetime

A SCSI encapsulation exchange begins in an initiator port after the port transmits a SCSI Command IU or a SCSI Task Management IU. A SCSI encapsulation exchange begins in a target port after the port receives a SCSI Command IU or a SCSI Task Management IU.

A SCSI encapsulation exchange ends in an initiator port after:

   a) The port receives a SCSI Response IU for that exchange and sends an ACK IU or NAK IU with the PR bit set to zero in response to it;
   b) the port transmits a SCSI Task Management IU containing a task management request aborting the exchange and receives a SCSI Response IU with a response code value of COMMAND OR TASK MANAGEMENT FUNCTION COMPLETE for the task management request; or
   c) a nexus loss occurs.

A SCSI encapsulation exchange ends in a target port after:

   a) the port transmits a SCSI Response IU for that exchange and receives an ACK IU or NAK IU with the PR bit set to zero in response to it;
   b) the port receives a SCSI Task Management IU containing a task management request aborting the exchange and transmits a SCSI Response IU with a response code value of COMMAND OR TASK MANAGEMENT FUNCTION COMPLETE for the task management request;
   c) a hard reset occurs; or
   d) a nexus loss occurs.

7.2.7.4 AER Data exchange lifetime

AER data exchanges are simple exchanges. The exchange begins in an ADT port in a DTD with the transmission of the IU and ends with the reception of the corresponding ACK IU or NAK IU with the PR bit set to zero. A simple exchange begins in an ADT port in an automation device with the reception of a valid IU and ends with the transmission of the corresponding ACK IU or NAK IU with the PR bit set to zero.