To: T10 Technical Committee
From: Rob Elliott, Compaq Computer Corporation (Robert.Elliott@compaq.com)
Date: 4 January 2002
Subject: T10/02-025r0 SPC-3 Unit Attention interlock and Asynchronous Event Reporting

Revision History
Revision 0 (4 January 2002) first revision based on 27 Nov 2001 email to T10 reflector

Related Documents
spc3r02 - SCSI Primary Commands - 3 revision 2 (Ralph Weber)
sam2r21 - SCSI Architecture Model - 2 revision 21 (Ralph Weber)
00-359r8 - Unit Attention Interlock (Ed Gardner)

Overview
The SPC-3 Control mode page defines how asynchronous event reporting (AER) is enabled for three kinds of events:
a) ready unit attentions (UA for initialization complete)
b) other unit attentions (UA for all other reasons)
c) deferred errors (not a UA)

It says that AER is used *instead of* creating a unit attention condition for the first two cases. Taken literally, if the event is reported via AER, a unit attention condition is not established.

This did not matter before the UA interlock proposal (00-359r7 incorporated into sam2r21 and spc3r2). That proposal mentions interlocking UAs that are reported with AERs. However, the SPC-3 wording means no UA condition exists to be reported. SPC-3 should indicate that unit attentions are created for cases a) and b) - getting rid of the "instead of" wording.

Suggested Changes to SPC-3
8.3.6 Control mode page
…
A ready AER permission (RAERP) bit of one specifies that the device server may issue an asynchronous event report upon detecting a unit attention condition established for completing its initialization sequence instead of generating a unit attention condition. A RAERP bit of zero specifies that the device server shall not issue an asynchronous event report upon completing its initialization sequencedetecting such a unit attention condition.

NOTE 49 - If the device server's default value for the RAERP bit is one and it does not implement saved parameters or include a hardware switch, then it may be impossible to disable the initialization sequenceready asynchronous event reporting.

A unit attention AER permission (UAAERP) bit of one specifies that the device server may issue an asynchronous event report instead of creating a unit attention condition upon detecting a unit attention condition event, established for a reason other than upon completing an its initialization sequence. A UAAERP bit of zero specifies that the device server shall not issue an asynchronous event reporting instead of creating a unit attention condition upon detecting such a unit attention condition.

An error AER permission (EAERP) bit of one specifies that the device server may issue an asynchronous event report upon detecting a deferred error condition instead of waiting to report the deferred error on the next command. An EAERP bit of zero specifies that the device server shall not report deferred error conditions via an asynchronous event reporting.