

To: T10 Technical Committee
From: Bob Sheffield (Robert.L.Sheffield@intel.com)
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Subject: 07-154r1 SAS2: ATTACHED SAS ADDRESS for virtual phys

Revision history

Revision 0 (20 March 2007) First revision

Revision 1 (27 April 2007) Incorporated feedback from April SAS WG - added when to update the ATTACHED SAS ADDRESS field for virtual phys.

Related documents

SAS-2-r09 - Serial Attached SCSI - 2 (SAS-2) revision 09

Overview

It isn't clear in the existing text what value appears in the ATTACHED SAS ADDRESS field for a virtual phy, since it's written from the perspective of a physical phy, which retrieves the ATTACHED SAS ADDRESS field from the SAS ADDRESS field received in the IDENTIFY address frame. For a virtual phy, there is no IDENTIFY address frame, which leaves the field undefined for a virtual phy.

Suggested changes in 10.4.3.7 DISCOVER function

Modify the description of the ATTACHED SAS ADDRESS field as follows:

For a physical phy, the ~~The~~ ATTACHED SAS ADDRESS field contains the value of the SAS ADDRESS field received in the IDENTIFY address frame during the identification sequence. If the attached port is an expander port, the ATTACHED SAS ADDRESS field contains the SAS address of the attached expander device (see 4.2.4). If the attached port is a SAS port, the ATTACHED SAS ADDRESS field contains SAS address of the attached SAS port (see 4.2.6). If the attached port is a SATA device port, the ATTACHED SAS ADDRESS field contains the SAS address of the STP/SATA bridge (see 4.6.2).

For a virtual phy, the ATTACHED SAS ADDRESS field contains the SAS address of the SAS port associated with the SAS end device.

The ATTACHED SAS ADDRESS field shall be updated:

- a) after the identification sequence completes, if a physical SAS phy or physical expander phy is attached; ~~or~~
- b) after the COMSAS Detect Timeout timer expires (see 6.8.3.9), if a SATA phy is attached; ~~or~~
- c) after the expander device recognizes the SAS port, if a virtual phy is attached.

An STP initiator port should not make a connection request to the attached SAS address until the ATTACHED DEVICE TYPE field is set to a value other than 000b.