To: T10 Technical Committee  
From: Bob Sheffield (Robert.L.Sheffield@intel.com)  
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Subject: 07-154r0 SAS2: ATTACHED SAS ADDRESS for virtual phy

Revision history  
Revision 0 (20 March 2007) First revision

Related documents  
SAS-2-r08 - Serial Attached SCSI - 2 (SAS-2) revision 08

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  
For a physical phy, 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 SAS phy or expander phy is attached; or
b) after the COMSAS Detect Timeout timer expires (see 6.8.3.9), if a SATA 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.