

To: T10 Technical Committee  
From: Rob Elliott, HP (elliott@hp.com)  
Date: 23 March 2006  
Subject: 06-167r1 SAS-2 Filtering OPEN content based on ZONE PARTICIPATING bit

### **Revision history**

Revision 0 (22 March 2006) First revision  
Revision 1 (23 March 2006) Incorporated comments from 23 March 2006 SAS-2 Zoning teleconference, which agreed that “zoning information” only means the SOURCE ZONE GROUP field in the OPEN address frame.

### **Related documents**

sas2r03 - Serial Attached SCSI - 2 (SAS-2) revision 3  
06-122r2 SAS-2 zoning - phy features (Ralph Weber, ENDL)  
06-168 SAS-2 OPEN address frame SOURCE ZONE GROUP field definition (Rob Elliott, HP)

### **Overview**

The zoning model in sas2r03 includes a statement that “If the ZONE PARTICIPATING bit is set to zero, then zoning information shall not be sent on the phy and any zoning information received on the phy shall be ignored” but does not define what “zoning information” means.

It should only mean the zoning related fields in the OPEN address frame - so far just the SOURCE ZONE GROUP field - need to be transmitted as zero (for compatibility with devices that don’t know anything about zoning) and ignored if received as non-zero (to avoid devices outside the ZPSDS from claiming to be in any zone group they please).

It does not mean that SMP functions directly related to zoning (e.g. ZONED BROADCAST or the forthcoming zoning configuration functions) need to be blocked - zone group 2 is used for that purpose. It does not mean that SMP functions indirectly related to zoning (e.g. REPORT GENERAL, if it contains a bit indicating that zoning is supported) need to be blocked.

### **Suggested changes**

#### **4.8.3 Zone operation**

##### **4.8.3.1 Zone phy information**

Each phy of a zoning expander device shall support the following zone phy information fields:

- a) ZONE PARTICIPATING bit;
- b) ZONE ADDRESS RESOLVED bit;
- c) ZONE GROUP PERSISTENT bit; and
- d) ZONE GROUP field.

The ZONE PARTICIPATING bit indicates a boundary of the ZPSDS. The ZONE PARTICIPATING bit shall be set to zero when the phy is attached to an end device or an expander device that does not support zoning. The ZONE PARTICIPATING bit shall be set to one when the phy is attached to a zoning expander device. ~~If the ZONE PARTICIPATING bit is set to zero, then zoning information shall not be sent on the phy and any zoning information received on the phy shall be ignored.~~

---

---

Editor’s Note 1: The 23 March 2006 SAS-2 Zoning teleconference agreed that “zoning information” only means the SOURCE ZONE GROUP field in the OPEN address frame. So, the sentence should change to “If the zone participating bit is set to zero, then the phy shall set the SOURCE ZONE GROUP field to zero in each OPEN address frame (see 7.8.3) that it transmits and shall ignore the SOURCE ZONE GROUP field in each OPEN address frame that it receives.” However, proposal 06-168 rewrites the definition in 7.8.3 (the OPEN address frame section) to include that rule, so the sentence can simply be deleted here.

---

---

...