

To: T10 Technical Committee  
 From: Rob Elliott, HP (elliott@hp.com)  
 Date: 27 October 2006  
 Subject: 06-473r0 SAS-2 REPORT EXPANDER ROUTE TABLE descriptor layout change

**Revision history**

Revision 0 (27 October 2006) First revision

**Related documents**

sas2r06 - Serial Attached SCSI - 2 (SAS-2) revision 6

**Overview**

The REPORT EXPANDER ROUTE TABLE descriptor is currently structured with the SAS address in bytes 8-15 and the phy bit map in bytes 0-5. These should be swapped, so the SAS address (which is the “index” into the table) is first.

**Suggested changes**

**10.4.3.14.4 REPORT EXPANDER ROUTE TABLE response descriptor**

Table 1 defines the REPORT EXPANDER ROUTE TABLE descriptor.

**Table 1 — REPORT EXPANDER ROUTE TABLE descriptor**

| Byte/Bit                      | 7                                  | 6 | 5          | 4 | 3        | 2 | 1 | 0 |
|-------------------------------|------------------------------------|---|------------|---|----------|---|---|---|
| <del>0</del>                  | <a href="#">ROUTED SAS ADDRESS</a> |   |            |   |          |   |   |   |
| <del>7</del>                  |                                    |   |            |   |          |   |   |   |
| <del>8</del><br><del>8</del>  | PHY BIT MAP                        |   |            |   | Reserved |   |   |   |
| <del>5</del><br><del>13</del> |                                    |   |            |   |          |   |   |   |
| <del>6</del><br><del>14</del> | ZONE GROUP VALID                   |   | ZONE GROUP |   |          |   |   |   |
| <del>7</del><br><del>15</del> |                                    |   |            |   |          |   |   |   |
| <del>8</del><br><del>15</del> | <del>ROUTED SAS ADDRESS</del>      |   |            |   |          |   |   |   |
| <del>15</del>                 |                                    |   |            |   |          |   |   |   |

The ROUTED SAS ADDRESS field contains the routed SAS address. [\[moved from below\]](#)

The PHY BIT MAP field indicates the phy(s) to which connection requests to the SAS address indicated by the ROUTED SAS ADDRESS field may be forwarded. This field is a bit map where each bit position indicates a corresponding phy (e.g., bit zero of byte 5 indicates the phy indicated by the starting phy identifier). A bit set to one indicates that connection requests to the SAS address indicated by the ROUTED SAS ADDRESS field may be forwarded to the corresponding phy. A bit set to zero indicates that connection requests to the SAS address indicated by the ROUTED SAS ADDRESS field are not forwarded to that corresponding phy. Bits representing phys beyond the value of the NUMBER OF PHYS field reported in the REPORT GENERAL response (see 10.4.3.3) shall be set to zero.

A ZONE GROUP VALID bit set to zero indicates that the ZONE GROUP field shall be ignored. A ZONE GROUP VALID bit set to one indicates that the ZONE GROUP field is valid.

The ZONE GROUP field is defined in 4.9.3.1.