

Date: September 15, 2007

To: T10 Committee

From Brad Besmer, LSI

Subject: SAS-2 Discover List Field Alignment

Overview

The SMP DISCOVER LIST Response field Last Phy Event Descriptor Index spans across a 32-bit DWORD boundary. Shift the 2 DESCRIPTOR INDEX values down by 1 byte.

SAS-2 Changes

10.4.3.15.3 DISCOVER LIST response

Table 180 defines the response format.

Table 180 — DISCOVER LIST response (part 1 of 2)

| Byte\Bit | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
|------------------|-------------------------------------|---|----------|---|-----------------|-------------|-------------------------------------|-------|
| 0 | SMP FRAME TYPE (41h) | | | | | | | |
| 1 | FUNCTION (20h) | | | | | | | |
| 2 | FUNCTION RESULT | | | | | | | |
| 3 | RESPONSE LENGTH $((n - 7) / 4)$ | | | | | | | |
| 4 | (MSB) | EXPANDER CHANGE COUNT | | | | | | (LSB) |
| 5 | | | | | | | | |
| 6 | Reserved | | | | | | | |
| 7 | | | | | | | | |
| 8 | STARTING PHY IDENTIFIER | | | | | | | |
| 9 | NUMBER OF DISCOVER LIST DESCRIPTORS | | | | | | | |
| 10 | Reserved | | | | PHY FILTER | | | |
| 11 | Reserved | | | | DESCRIPTOR TYPE | | | |
| 12 | DESCRIPTOR LENGTH | | | | | | | |
| 13 | | | | | | | | |
| 15 | Reserved | | | | | | | |
| 16 | ZONING SUPPORTED | ZONING ENABLED | Reserved | | | CONFIGURING | EXTERNALLY CONFIGURABLE ROUTE TABLE | |
| 17 | <u>Reserved</u> | | | | | | | |
| 17 18 | (MSB) | LAST SELF-CONFIGURATION STATUS DESCRIPTOR INDEX | | | | | | (LSB) |
| 18 19 | | | | | | | | |
| 19 20 | (MSB) | LAST PHY EVENT INFORMATION DESCRIPTOR INDEX | | | | | | (LSB) |
| 20 21 | | | | | | | | |
| 21 22 | Reserved | | | | | | | |
| 31 | | | | | | | | |

Table 180 — DISCOVER LIST response (part 2 of 2)

| Byte\Bit | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 | |
|-------------------------------|--|-----|---|---|---|---|---|-------|--|
| 32 | Vendor specific | | | | | | | | |
| 47 | | | | | | | | | |
| DISCOVER LIST descriptor list | | | | | | | | | |
| 48 | DISCOVER LIST descriptor (first)(see table 362 in 10.4.3.15.1, and table 338 in 10.4.3.9 or table 364 in 10.4.3.15.4) | | | | | | | | |
| | ... | | | | | | | | |
| n - 4 | DISCOVER LIST descriptor (last)(see table 362 in 10.4.3.15.1, and table 338 in 10.4.3.9 or table 364 in 10.4.3.15.4) | | | | | | | | |
| n - 3 | (MSB) | CRC | | | | | | | |
| n | | | | | | | | (LSB) | |