To: T10 Technical Committee

From: Tim Symons, PMC-Sierra (Tim_Symons@pmc-sierra.com) Date: 19 June 2006

Subject: 06-289r0 SAS-2 CONFIGURE & REPORT ZONE MANAGEMENT CLIENT ADDRESS functions

Revision Information

• Revision 0: First draft.

Referenced Document

Sas2r04 Serial Attached SCSI – 2 (SAS-2) r4 06-286r0 SAS-2 Registered Zone Management client. 06-288r0 SAS-2 SMP ACTIVATE ZONE PERMISSION UPDATE functions

Overview

To support SAS-2 Registered zone management client proposal (06-286) the SAS address of the zone management client device is registered by every zoning expander device. The address shall be persistent through power cycles.

This proposal is for an SMP configure and report functions to change the value SAS address of the zone management client device.

10.4.3.1 SMP function request frame format

Code	SMP function	Description	Reference
xxh	CONFIGURE ZONE MANAGEMENT CLIENT SAS ADDRESS	Update the registered zone management client SAS address for a zoning expander device	10.4.3.xx
xxh	REPORT ZONE MANAGEMENT CLIENT SAS ADDRESS	Report the registered zone management client SAS address for a zoning expander device	10.4.3.xx

Table 195 – SMP functions (FUNCTION field)

10.4.3.xx CONFIGURE ZONE MANAGEMENT CLIENT SAS ADDRESS function

The CONFIGURE ZONE MANAGEMENT CLIENT SAS ADDRESS function requests a zoning expander device to replace the zone management client SAS address with the value in the configure request.

The CONFIGURE ZONE MANAGEMENT CLIENT SAS ADDRESS request shall only be originated by a zone management client that has access permission for zone group 2.

If a zoning expander device receives an ACTIVATE ZONE PERMISSION UPDATE request from a device without zone access permission to zone group 2, then the zoning expander device shall respond with a function result of ZONE MANAGEMENT CLIENT VIOLATION. (See 10.4.3.2)

[Editors note - referenced error code form 06-286r0]

T10/06-289r0 SAS-2 CONFIGURE & REPORT ZONE MANAGEMENT CLIENT ADDRESS functions.

Table 1 defines the CONFIGURE ZONE MANAGEMENT CLIENT SAS ADDRESS request format.

Byte\Bit	7	6	5	4	3	2	1	0		
0	SMP FRAME TYPE (40h)									
1	FUNCTION (xxh)									
2		Reserved								
3	REQUEST LENGTH (02)									
4		ZONE MANAGEMENT CLIENT SAS ADDRESS								
11										
12	(MSB)	(MSB)								
15		-	CRC (LSB)							

Table 1 – CONFIGURE ZONE MANAGEMENT CLIENT SAS ADDRESS request

The SMP FRAME TYPE field shall be set to 40h.

The FUNCTION field shall be set to xxh.

The REQUEST LENGTH field shall be set to (02).

The ZONE MANAGEMENT CLIENT SAS ADDRESS specifies the SAS address of the device permitted to configure the zone permission table of the zoning expander device.

The CRC field is defined in 10.4.3.2.

The CONFIGURE ZONE MANAGEMENT CLIENT SAS ADDRESS response format is defined in Table 2.

Byte\Bit	7	6	5	4	3	2	1	0		
0	SMP FRAME TYPE (41h)									
1		FUNCTION (xxh)								
2		FUNCTION RESULT								
3		RESPONSE LENGTH (00h)								
4	(MSB)									
7		CRC (LSB)								

The SMP FRAME TYPE field shall be set to 41h.

The FUNCTION field shall be set to xxh.

The RESPONSE LENGTH field shall be set to 00h.

The CRC field is defined in 10.4.3.2.

10.4.3.xx REPORT ZONE MANAGEMENT CLIENT SAS ADDRESS function

The REPORT ZONE MANAGEMENT CLIENT SAS ADDRESS function requests a zoning expander device to return the zone management client SAS address in the function response

Table 1 defines the REPORT ZONE MANAGEMENT CLIENT SAS ADDRESS request format.

Table 2 – REPORT ZONE MANAGEMENT CLIENT SAS ADDRESS request

Byte\Bit	7	6	5	4	3	2	1	0			
0	SMP FRAME TYPE (41h)										
1		FUNCTION (xxh)									
2		FUNCTION RESULT									
3	REQUEST LENGTH (00h)										
4	(MSB) CRC										
7		(LSB)									

The SMP FRAME TYPE field shall be set to 40h.

The FUNCTION field shall be set to xxh.

The REQUEST LENGTH field shall be set to (00).

The CRC field is defined in 10.4.3.2.

The REPORT ZONE MANAGEMENT CLIENT SAS ADDRESS response format is defined in Table 2.

Table 2 – REPORT ZONE MANAGEMENT CLIENT SAS ADDRESS response

Byte\Bit	7	6	5	4	3	2	1	0		
0	SMP FRAME TYPE (40h)									
1	FUNCTION (xxh)									
2		Reserved								
3	RESPONSE LENGTH (02)									
4										
11	ZONE MANAGEMENT CLIENT SAS ADDRESS									
12	(MSB)	(MSB) CRC								
15		_	(LSB)							

The SMP FRAME TYPE field shall be set to 41h.

The FUNCTION field shall be set to xxh.

The RESPONSE LENGTH field shall be set to 02h.

The ZONE MANAGEMENT CLIENT SAS ADDRESS indicates the SAS address of the device permitted to configure the zone permission table of the zoning expander device.

T10/06-289r0 SAS-2 CONFIGURE & REPORT ZONE MANAGEMENT CLIENT ADDRESS functions.

The CRC field is defined in 10.4.3.2.