

To: T10 Technical Committee
From: Tim Symons, PMC-Sierra (Tim_Symons@pmc-sierra.com)
Date: 4 July 2007
Subject: 07-308r0 SAS-2 Configured zone group.

Revision Information

- Revision 0: First draft.

Referenced Document

sas2r010 Serial Attached SCSI – 2 (SAS-2) revision 10.

Overview

This is a proposal to add a DEFAULT ZONE GROUP field to the DISCOVER response.

When zoning is enabled the zone manager shall assign each zoning expander phy attached to another zoning expander phy inside a ZPSDS to zone group 1. (see 4.9.1)

Figure 1 shows a ZPSDS where a phy on Expander device 1, is configured to DEFAULT ZONE GROUP 20, but the zone manager assigns it to zone group 1 because it is attached to another expander phy inside the ZPSDS.

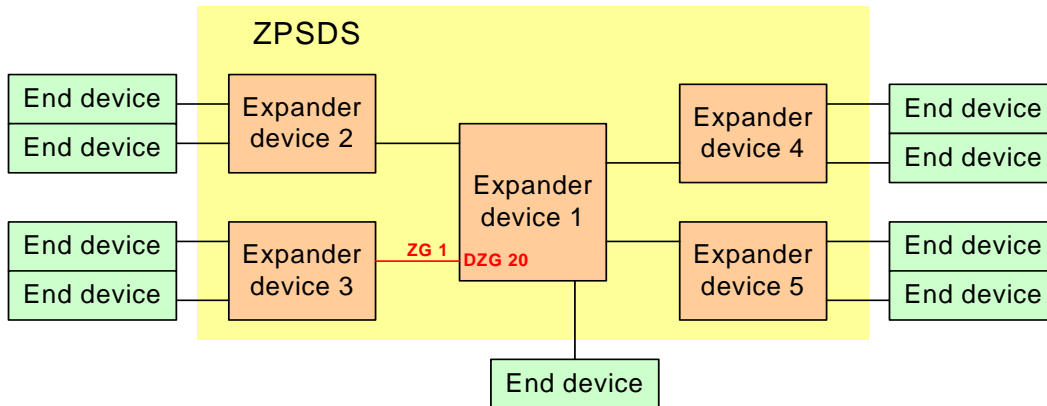


Figure 1 - ZPSDS with a phy configured to zone group 20, assigned to zone group 1

There is no method to identify the default zone group of the phy when the zone manager assigned the phy to group 1. If a zoning expander is removed from the ZPSDS, and the zoning expander phy becomes a boundary phy, then the DEFAULT ZONE GROUP is active.

Figure 2 show the ZPSDS with expander device 3 removed, and the configured phy zone group is activated.

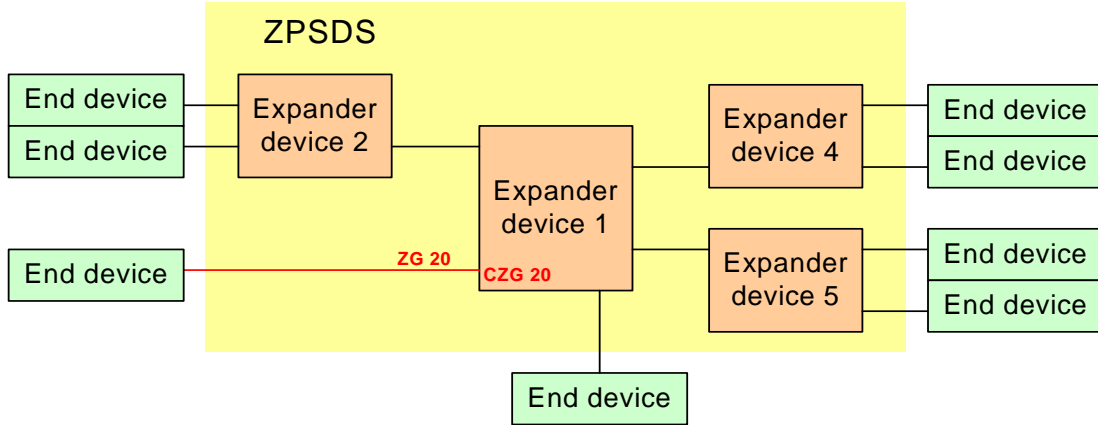


Figure 2 - ZPSDS with expander device 3 removed.

[Suggested addition to SAS-2 existing text (included in black), new additional text revisions shown in red]

10.4.3.8 DISCOVER function

The DISCOVER function returns information about the specified phy. This SMP function provides information from the IDENTIFY address frame received by the phy and additional phy-specific information. This SMP function shall be implemented by all management device servers.

...
Table 244 defines the response format.

Byte\ Bit	7	6	5	4	3	2	1	0	
...	...								
60	Reserved	REQUESTED INSIDE ZPSDS CHANGED BY EXPANDER	INSIDE ZPSDS PERSISTENT	REQUESTED INSIDE ZPSDS	Reserved	ZONE GROUP PERSISTENT	INSIDE ZPSDS	ZONING ENABLED	
61	Reserved								
62	DEFAULT ZONE GROUP								
63	ZONE GROUP								
...	...								
	(MSB)	CRC							(LSB)

...
The DEFAULT ZONE GROUP field indicates the zone group that has been configured for the phy (see 10.4.3.23.3).

...
Editors note : The DEFAULT ZONE GROUP field is not required to be reported in DISCOVER LIST.