

T10/06-201r0 SAS-2 SMP CONFIGURE PHY ZONE function.

Date: 18 April 2006
To: T10 Technical Committee
From: Tim Symons
Subject: 06-201r0 SMP CONFIGURE PHY ZONE functions

Revision Information

- Revision 0 : Proposal extracted from 06-019r5 SAS-2 Zoning proposal.

Referenced Document

SAS-2 revision 2 (<http://www.t10.org/ftp/t10/drafts/sas2/sas2r02.pdf>)

Overview

SMP CONFIGURE PHY ZONE is a function that allows any management device with access permission to special zone group 2 to revise the zoning parameters of a zoning phy.

10.4.3.13 CONFIGURE PHY ZONE function

The CONFIGURE PHY ZONE function sets the zoning attributes for phys in a zoning expander device. This function shall be supported by all zoning devices. An SMP CONFIGURE PHY ZONE request shall only be executed if the request is originated by a device with permission to access special ZONE GROUP 2. In all other cases the FUNCTION RESULT field shall be set to SMP FUNCTION FAILED.

When a CONFIGURE PHY ZONE function is completed a BROADCAST (CHANGE) shall be sent on all phys.

Table 1 defines the CONFIGURE PHY ZONE request format.

Table 1 – CONFIGURE PHY ZONE request

Byte\Bit	7	6	5	4	3	2	1	0	
0	SMP FRAME TYPE (40h)								
1	FUNCTION (93h)								
2	Reserved								
3	REQUEST LENGTH $((n - 7) / 4)$								
4	Reserved								
5									
6	Reserved	START PHY INDEX							
7	NUMBER OF ZONE PHY ENTRIES $((n - 11) / 2)$								
8	First phy zone configuration entry descriptor (see Table 2)								
9									
...	...								
m - 1	Last phy zone configuration entry descriptor (see Table 2)								
m									
Fill bytes, if needed									
n - 3	(MSB)	CRC						(LSB)	
n									

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

The FUNCTION field shall be set to 93h.

The REQUEST LENGTH field shall be set to $((n - 7) / 4)$.

The START PHY INDEX field specifies the first phy index to be configured by the CONFIGURE PHY ZONE command.

The NUMBER OF ZONE PHY ENTRIES field specifies the number of phy zone configuration entry descriptors in the request $((n - 11) / 2)$. Table 2 defines the phy zone configuration entry descriptor.

Fill bytes shall be included after the last phy zone configuration entry descriptor so the CRC field is aligned on a four-byte boundary. The contents of the fill bytes are vendor specific.

The CRC field is defined in 7.8.1.

Table 2 - Phy zone configuration entry descriptor

Byte\Bit	7	6	5	4	3	2	1	0
0	Reserved			ZONE PARTICIPATING	ZONE PROXY PRIORITY			
1	ZONE GROUP							

A ZONE PARTICIPATING bit is defined in 4.8.3.1.

The ZONE PROXY PRIORITY field is defined in section [10.4.3.5](#).

The ZONE GROUP field is defined in section 8.4.3.1.

Table 3 defines the CONFIGURE PHY ZONE response format.

Table 3 – CONFIGURE PHY ZONE response

Byte\Bit	7	6	5	4	3	2	1	0
0	SMP FRAME TYPE (41h)							
1	FUNCTION (93h)							
2	FUNCTION RESULT							
3	RESPONSE LENGTH (00h)							
4	(MSB)	CRC						(LSB)
7								

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

The FUNCTION field shall be set to 93h.

The FUNCTION RESULT field shall contain SMP FUNCTION ACCEPTED if the request is originated by a device with access permission to ZONE GROUP 2. In all other cases the FUNCTION RESULT field shall be set to SMP FUNCTION FAILED.

The RESPONSE LENGTH field shall be set to 00h.

The CRC field is defined in 7.8.1.