To: T10 Technical Committee
From: Kevin Marks (Kevin_Marks@dell.com) Dell, Inc.
Date: July 25, 2005
Subject: SES-2: Add RQST MISSING to DEVICE/ARRAY DEVICE element Control page

Revision History
Revision 0 (7/25/05)

Related Documents
SCSI Enclosure Services – 2 (T10/1559-D - SES-2r12)

Overview
Dell sees a need to define a new RQST MISSING (request device missing indication) bit in the Enclosure Control Diagnostic page for the Device/Array Device elements. The added RQST MISSING bit is used to specify to the enclosure services processor that it provide visual indication that the device in device slot has gone missing (e.g. has been removed instead of being failed.)

Suggested Changes:

Change Table 59 - Device element for Enclosure Control diagnostic page to add the RQST MISSING bit to byte-2 bit-4:

Table 59 – Device element for Enclosure Control Diagnostic page

Byte\Bit	7	6	5	4	3	2	1	0
0	COMMON CONTROL							
1	Reserved							
2	RQST ACTIVE	DO NOT REMOVE	Reserved	RQST MISSING	RQST INSERT	RQST REMOVE	RQST IDENT	Rsvd
3	Reserved		RQST FAULT	DEVICE OFF	ENABLE BYP A	ENABLE BYP B	Reserved	

Change the following text in section 7.3.2 (PAGE 63) to include the RQST MISSING bit:

A RQST IDENT (request identify) bit set to one specifies that the enclosure services process identify the element (i.e., the device slot) by a visual indication. A RQST IDENT bit set to zero specifies that the enclosure services process not identify the element by a visual indication.

A RQST MISSING (request device missing indication) bit set to one specifies that the device slot be identified by a visual indication that a previously present device has gone missing (e.g. has been removed) from the device slot. A RQST MISSING bit set to zero specifies that the device missing indication shall be cleared.

A RQST FAULT (request fault indication) bit set to one specifies that the device slot be identified by a visual indication that a fault is present in the device. A RQST FAULT bit set to zero specifies that the fault indication shall be cleared if the indication is not also being set by the device or the enclosure services process.

Change Table 61 – Array Device element for Enclosure Control diagnostic page to add the RQST MISSING bit to byte-2 bit-4:

Table 61 – Array Device element for Enclosure Control Diagnostic page

Byte\Bit	7	6	5	4	3	2	1	0
0	COMMON CONTROL							
1	RQST OK	RQST RSVD DEVICE	RQST HOT SPARE	RQST CONS CHECK	RQST IN CRIT ARRAY	RQST IN FAILED ARRAY	RQST REBUILD/ REMAP	RQST R/R ABORT
2	RQST ACTIVE	DO NOT REMOVE	Reserved	RQST MISSING	RQST INSERT	RQST REMOVE	RQST IDENT	Rsvd
3	Reserved		RQST FAULT	DEVICE OFF	ENABLE BYP A	ENABLE BYP B	Reserved	

Change the following text in section 7.3.3 (PAGE 66) to include the RQST MISSING bit:

A RQST R/R ABORT (request rebuild/remap aborted) bit set to one specifies that the "rebuild/remap abort" indicator be turned on. A RQST R/R ABORT bit set to zero specifies that the "rebuild/remap abort" indicator be turned off.

The RQST ACTIVE (request device activity indication) bit, DO NOT REMOVE bit, RQST INSERT (request insert) bit, RQST REMOVE (request removal) bit, RQST MISSING (request device missing indication) bit, RQST IDENT (request identify) bit, RQST FAULT (request fault indication) bit, DEVICE OFF bit, ENABLE BYP A (enable bypass A) bit, and ENABLE BYP B (enable bypass B) bit are defined in the Device element for the Enclosure Control diagnostic page (see 7.3.2).

The format of the status field for an Array Device element in the Enclosure Status diagnostic page (see 6.1.4) is defined in table 62.