

To: T10 Technical Committee
 From: Thin Nguyen (thin_nguyen@hp.com) and Rob Elliott (elliott@hp.com), HP
 Date: 18 July 2002
 Subject: T10/02-248r1 SES-2 Cooling Element fan speed in RPM

Revision History

Revision 0 (28 June 2002) first revision
 Revision 1 (18 July 2002) incorporated comments from July CAP WG – added “speed” to one row in table

Related Documents

ses2r00 – SCSI Enclosure Services - 2 revision 00

Overview

The Cooling element (for Enclosure Status diagnostic pages) provides a three bit speed code field to indicate the speed of the fan in generic lowest - highest terms. Management applications and users need a way to convert that code into an actual fan speed with more resolution.

Suggested Changes

To provide a more accurate information, the proposal provides for modifying the status information to report the actual fan speed in RPM.

7.3.5 Cooling element

...
 The format of the STATUS INFORMATION field for a ~~cooling-Cooling~~ element is defined in table 37.

Table 37 — Cooling element for Enclosure Status diagnostic pages

	7	6	5	4	3	2	1	0
0	COMMON STATUS							
1	Reserved						(MSB)	
2	ACTUAL FAN SPEED (LSB)							
3	Rsvd	FAIL	RQSTED ON	OFF	Rsvd	ACTUAL SPEED CODE		

...
The ACTUAL FAN SPEED field defines the actual fan speed in revolutions per minute (RPM) when multiplied by a factor of 10.

The REQUESTED SPEED CODE field is set to indicate the requested speed or rate of cooling of the fan or cooling device, as specified in table 36.

Table 36 — REQUESTED SPEED CODE values

Speed code	Description
000b	Reserved
001b	Fan at lowest speed
010b	Fan at second lowest speed
011b	Fan at speed-3 third lowest speed
100b	Fan at speed-4 intermediate speed
101b	Fan at speed-5 third highest speed
110b	Fan at intermediate-speed second highest speed
111b	Fan at highest speed