X3T10 Letter Ballot Comment Resolution

SCSI-3 Enclosure Services Command set (SES)

Revision 7.0

November 11, 1996

John B. Lohmeyer, Chair

Symbios Logic

1635 Aeroplaza Drive.

Colorado Springs, CO 80916-3899

Phone: (719) 573-3362

FAX: (719) 597-8225

e-mail: john.lohmeyer@symbios.com

Robert Snively, Draft Technical Editor

Sun Microsystems, MPK12-204

2550 Garcia Ave

Mountain View, CA 94043-1100

Phone: (415) 786-6694

FAX:

e-mail: bob.snively@sun.com

1   Ballot Summary

The ballot was officially closed on September 3, 1996.

This document contains the letter ballot comments and the proposed responses to the comments.

2   Ballot Comment Lists

The following comments have been received with the returned ballots. A summary list organizes the comments by the submitter's affiliation. The list indicates whether the comment is technical (T) or editorial (E). Shaded entries indicate that the particular response deserves special attention. The list additionally indicates whether the proposed resolution to the comment was accepted or rejected by the editor or committee, as shown in the key below.

Table 1: Key to resolution of comment

Keyword	meaning
Accepted	The proposed resolution to the comment was accepted unchanged
Modified	The proposed resolution to the comment was accepted in principal, but the details were changed
Changed	The proposed resolution to the comment was not accepted, but the committee identified a related problem and corrected it.
Not accepted	The proposed resolution to the comment was not accepted and no change was made to the document.
PNF	Problem not found: The editor or committee was unable to interpret the comment.

Section 3 of this document contains the text of the comments and the solution formally accepted by the X3T10 Plenary meeting on November 7, 1996.

Table 2: Chart of Ballot Review Comments

Submitter	#	Type	Resolution	Location	Description
Exabyte	E.1	E	Accepted	Cover	
Exabyte	E.2	E	PNF	6.1.4	
Exabyte	E.3	E	Accepted	Table 8	
Exabyte	E.4	E	Accepted	Tables 9-11, 13,17	
Exabyte	E.5	E	Accepted	6.2.2	
Exabyte	E.6	E	Accepted	7.2.5	
Exabyte	E.7	E	Accepted	7.2.7	
Exabyte	E.8	E	Accepted	7.2.11	
Exabyte	E.9	T	Modified	7.2.12	
Exabyte	E.10	T	Not Accepted	7.2.15	
Exabyte	E.11	E	Modified	7.2.15	
Exabyte	E.12	T	Accepted	7.2.16	Language element definition
Exabyte	E.13	T	Modified	Tables 66, 67, 68, 69	
Exabyte	E.14	E	Accepted	none	
IBM	I.1	E	Accepted	3.3.1	
IBM	I.2	E	Accepted	3.3.8	
IBM	I.3	E	Accepted	many	
IBM	I.4	E	Modified	4.1, 3.1	
IBM	I.5	E	Modified	4.1.2	
IBM	I.6	E	Modified	4.1.2	
IBM	I.7	E	Accepted	4.1.3	
IBM	I.8	E	Accepted	6.1.1	
IBM	I.9	E	Accepted	6.1.1	
IBM	I.10	E	Accepted	6.1.1	

Table 2: Chart of Ballot Review Comments

Submitter	#	Type	Resolution	Location	Description
IBM	I.11	E	Accepted	6.1.1	
IBM	I.12	E	Accepted	6.1.2	
IBM	I.13	E	Accepted	6.1.2	
IBM	I.14	E	Modified	6.1.2	
IBM	I.15	E	Modified	6.1.2	
IBM	I.16	E	Modified	6.1.2	
IBM	I.17	E	Accepted	6.1.2	
IBM	I.18	E	Accepted	6.1.3	
IBM	I.19	E	Accepted	6.1.3	
IBM	I.20	E	Accepted	6.1.3	
IBM	I.21	E	Accepted	6.1.7	
IBM	I.22	E	Accepted	6.1.7	
IBM	I.23	E	Not Accepted	6.1.7	
IBM	I.24	E	Not Accepted	6.1.7	
IBM	I.25	E	Accepted	6.1.12	
IBM	I.26	E	Accepted	6.1.12	
IBM	I.27	E	Accepted	7.1	
IBM	I.28	E	Not Accepted	7.1.1	
IBM	I.29	E	Accepted	7.1.1	
IBM	I.30	E	Modified	7.1.1	
IBM	I.31	E	Accepted	7.1.1	
IBM	I.32	E	Not Accepted	7.1.1	
IBM	I.33	E	Accepted	7.1.1	
IBM	I.34	E	Not Accepted	7.1.1	
IBM	I.35	E	Modified	7.2.2	

Table 2: Chart of Ballot Review Comments

Submitter	#	Type	Resolution	Location	Description
IBM	I.36	E	Accepted	7.2.2	
IBM	I.37	E	Accepted	7.2.2	
IBM	I.38	E	Modified	7.2.3	
IBM	I.39	E	Modified	7.2.4	
IBM	I.40	E	Accepted	7.2.4	
IBM	I.41	E	Accepted	7.2.4	
IBM	I.42	E	Modified	7.2.5	
IBM	I.43	E	Accepted	7.2.5	
IBM	I.44	E	Accepted	7.2.5	
IBM	I.45	E	Accepted	7.2.5	
IBM	I.46	E	Modified	7.2.6	
IBM	I.47	E	Accepted	7.2.6	
IBM	I.48	E	Accepted	7.2.6	
IBM	I.49	E	Modified	7.2.6	
IBM	I.50	E	Modified	7.2.6	
IBM	I.51	E	Modified	7.2.7	
IBM	I.52	E	Accepted	7.2.7	
IBM	I.53	E	Modified	7.2.8	
IBM	I.54	E	Accepted	7.2.8	
IBM	I.55	E	Accepted	7.2.8	
IBM	I.56	E	Accepted	7.2.8	
IBM	I.57	E	Accepted	7.2.8	
IBM	I.58	E	Accepted	7.2.8	
IBM	I.59	E	Accepted	7.2.12	
IBM	I.60	E	Modified	7.2.12	

Table 2: Chart of Ballot Review Comments

Submitter	#	Type	Resolution	Location	Description
IBM	I.61	E	Accepted	7.2.15	
IBM	I.62	E	Accepted	7.2.15	
IBM	I.63	E	Accepted	7.2.15	
IBM	I.64	E	Modified	7.2.18	
IBM	I.65	E	Accepted	7.2.18	
IBM	I.66	E	Modified	7.2.18	
IBM	I.67	E	Accepted	7.2.18	
IBM	I.68	E	Accepted	7.2.18	
IBM	I.69	E	Modified	7.2.19	
IBM	I.70	E	Accepted	7.2.19	
IBM	I.71	E	Modified	7.2.19	
IBM	I.72	E	Accepted	7.2.19	
IBM	I.73	E	Accepted	7.2.19	
IBM	I.74	E	Modified	7.2.20	
IBM	I.75	E	Accepted	7.2.20	
IBM	I.76	E	Modified	7.2.21	
IBM	I.77	E	Accepted	7.2.21	
IBM	I.78	E	Modified	7.2.22	
IBM	I.79	T	Not Accepted	Annex A	
Seagate	SE.1	E	Not Accepted	Cover	
Seagate	SE.2	E	Accepted	Copyright page	
Seagate	SE.3	E	Accepted	TOC, 5.0	
Seagate	SE.4	E	Accepted	Foreword	
Seagate	SE.5	E	Modified	Foreword	
Seagate	SE.6	E	Accepted	Patent Notice	

Table 2: Chart of Ballot Review Comments

Submitter	#	Type	Resolution	Location	Description
Seagate	SE.7	E	Not Accepted	1.0	
Seagate	SE.8	E	Accepted	1.0	
Seagate	SE.9	E	Accepted	2.0	
Seagate	SE.10	E	Accepted	3.1	
Seagate	SE.11	E	Accepted	3.1	
Seagate	SE.12	E	Accepted	3.1.12-14	
Seagate	SE.13	E	Accepted	3.1.12-14	
Seagate	SE.14	E	Accepted	3.1.17	
Seagate	SE.15	E	Accepted	3.1.19	
Seagate	SE.16	E	Accepted	3.1.23	
Seagate	SE.17	E	Accepted	3.3.1	
Seagate	SE.18	E	Accepted	none	
Seagate	SE.19	E	Accepted	3.3.8	
Seagate	SE.20	E	Accepted	3.4	
Seagate	SE.21	E	Accepted	3,4	
Seagate	SE.22	E	Accepted	4.1	
Seagate	SE.23	E	Accepted	4.1.1	
Seagate	SE.24	E	Accepted	4.1.2	
Seagate	SE.25	E	Not Accepted	4.1.3	
Seagate	SE.26	T	Modified	4.1.4	
Seagate	SE.27	E	Modified	5.0	
Seagate	SE.28	E	Accepted	5.0	
Seagate	SE.29	E	Changed	6.1	
Seagate	SE.30	E	Not Accepted	6.1.1	
Seagate	SE.31	E	Accepted	6.1.7	

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Submitter	#	Type	Resolution	Location	Description
Seagate	SE.32	E	Accepted	6.1.7	
Seagate	SE.33	E	Accepted	6.1.7	
Seagate	SE.34	E	Accepted	6.1.8	
Seagate	SE.35	E	Accepted	6.1.12	
Seagate	SE.36	E	Accepted	6.2.2	
Seagate	SE.37	E	Not Accepted	7.2.9	
Seagate	SE.38	E	Accepted	7.2.18-19	
Seagate	SE.39	E	Accepted	A.2	
Seagate	SE.40	E	Accepted	A.1	
Seagate	SE.41	E	Accepted	A.3	
Seagate	SE.42	E	Accepted	A.3	
Seagate	SE.43	E	Not Accepted	A.5	
Seagate	SE.44	E	Accepted	A.8	
Seagate	SE.45	E	Accepted	A.11	
Seagate	SE.46	E	Accepted	B.1	
Seagate	SE.47	E	Accepted	B.1	
Seagate	SE.48	E	Accepted	B.1	
Seagate	SE.49	E	Accepted	B.1	
Sun	SU.1	T	Modified	7.2.4	Power Supply "on" indication
Sun	SU.2	T	Accepted	7.2.16	
Sun	SU.3	E	Accepted	7.2.18	
Sun	SU.4	E	Accepted	7.2.18	Correct voltage sensor
Sun	SU.5	E	Accepted	7.2.19	
Sun	SU.6	E	Accepted	7.2.19	Correct current sensor
Sun	SU.7	E	Accepted	Table of Contents	

Table 2: Chart of Ballot Review Comments

Submitter	#	Type	Resolution	Location	Description
Sun	SU.8	E	Accepted	Page xii	
Sun	SU.9	E	Accepted	Foreword	
Sun	SU.10	E	Accepted	Introduction	
Sun	SU.11	E	Accepted	Introduction	
Sun	SU.12	E	Accepted	Introduction	
Sun	SU.13	E	Accepted	Introduction	
Sun	SU.14	E	Accepted	Clause 2	
Sun	SU.15	E	Accepted	3.1	
Sun	SU.16	E	Accepted	3.1.7	
Sun	SU.17	E	Accepted	3.1.15	
Sun	SU.18	E	Accepted	4.1.1	
Sun	SU.19	E	Accepted	4.1.2	
Sun	SU.20	E	Accepted	4.1.3	
Sun	SU.21	E	Accepted	4.1.5	
Sun	SU.22	E	Accepted	6.1.1	
Sun	SU.23	E	Accepted	6.1.7	
Sun	SU.24	E	Accepted	6.1.12	
Sun	SU.25	E	Accepted	7.2.4	
Sun	SU.26	E	Accepted	7.2.8	
Sun	SU.27	E	Accepted	7.2.8	
Sun	SU.28	E	Accepted	7.2.8	
Sun	SU.29	E	Accepted	7.2.9	
Sun	SU.30	E	Accepted	7.2.12	
Sun	SU.31	E	Accepted	A.3	
Sun	SU.32	E	Accepted	A.3	

Table 2: Chart of Ballot Review Comments

Submitter	#	Type	Resolution	Location	Description
Symbios	SY.1	T	Modified	6.1.1-6.1.12	Extend Generation Code
Symbios	SY.2	T	Modified	many	
Symbios	SY.3	E	Accepted	Many	
Symbios	SY.4	E	Accepted	Many	
Symbios	SY.5	E	Accepted	Page xiii	
Symbios	SY.6	T	Accepted	2	
Symbios	SY.7	T	Modified	3.1	
Symbios	SY.8	E	Accepted	3.1.8	
Symbios	SY.9	T	Modified	3.1.10	
Symbios	SY.10	E	Accepted	3.1.16	
Symbios	SY.11	E	Modified	3.1.20	
Symbios	SY.12	E	Accepted	3.1.23	
Symbios	SY.13	E	Accepted	3.2.1	
Symbios	SY.14	T	Accepted	3.3.7	
Symbios	SY.15	T	Accepted	4.1	
Symbios	SY.16	E	Accepted	4.1	
Symbios	SY.17	E	Accepted	4.1.1	
Symbios	SY.18	T	Accepted	4.1.2	
Symbios	SY.19	E	Accepted	4.1.2	
Symbios	SY.20	E	Accepted	4.1.2	
Symbios	SY.21	T	Accepted	4.1.2	
Symbios	SY.22	T	Accepted	4.1.2	
Symbios	SY.23	T	Accepted	4.1.2	
Symbios	SY.24	T	Modified	4.1.2	
Symbios	SY.25	T	Accepted	4.1.3	

Table 2: Chart of Ballot Review Comments

Submitter	#	Type	Resolution	Location	Description
Symbios	SY.26	E	Modified	4.1.3	
Symbios	SY.27	T	Accepted	4.1.5	
Symbios	SY.28	T	Accepted	4.1.5	
Symbios	SY.29	T	Accepted	4.1.5	
Symbios	SY.30	T	Accepted	4.1.5	
Symbios	SY.31	T	Accepted	4.1.5	
Symbios	SY.32	T	Modified	4.1.5	
Symbios	SY.33	E	Modified	5	
Symbios	SY.34	T	Modified	5	
Symbios	SY.35	E	Accepted	5	
Symbios	SY.36	E	Accepted	5	
Symbios	SY.37	E	Accepted	6.1	
Symbios	SY.38	T	Accepted	6.1	
Symbios	SY.39	T	Accepted	6.1	
Symbios	SY.40	T	Not accepted	6.1	
Symbios	SY.41	E	Accepted	6.1	
Symbios	SY.42	T	Modified	6.1	
Symbios	SY.43	T	Accepted	6.1	
Symbios	SY.44	E	Modified	6.1	
Symbios	SY.45	T	Modified	6.1	
Symbios	SY.46	E	Accepted	6.1.1	
Symbios	SY.47	E	Modified	6.1.1	
Symbios	SY.48	E	Accepted	6.1.1	
Symbios	SY.49	T	Accepted	6.1.1	
Symbios	SY.50	E	Accepted	6.1.1	

Table 2: Chart of Ballot Review Comments

Submitter	#	Type	Resolution	Location	Description
Symbios	SY.51	T	Accepted	6.1.1	
Symbios	SY.52	E	Accepted	6.1.1	
Symbios	SY.53	T	Accepted	6.1.1	
Symbios	SY.54	E	Accepted	6.1.1	
Symbios	SY.55	E	Accepted	6.1.1	
Symbios	SY.56	E	Accepted	6.1.1	
Symbios	SY.57	T	Modified	6.1.1	
Symbios	SY.58	T	Not accepted	6.1.1	
Symbios	SY.59	E	Accepted	6.1.1	
Symbios	SY.60	T	Accepted	6.1.1	
Symbios	SY.61	E	Accepted	6.1.1	
Symbios	SY.62	E	Accepted	6.1.1	
Symbios	SY.63	E	Accepted	6.1.1	
Symbios	SY.64	E	Accepted	6.1.1	
Symbios	SY.65	E	Accepted	6.1.1	
Symbios	SY.66	E	Accepted	6.1.1	
Symbios	SY.67	E	Accepted	6.1.1	
Symbios	SY.68	E	Accepted	6.1.1	
Symbios	SY.69	E	Modified	6.1.1	
Symbios	SY.70	E	Modified	6.1.1	
Symbios	SY.71	E	Accepted	6.1.1	
Symbios	SY.72	E	Accepted	6.1.1	
Symbios	SY.73	E	Accepted	6.1.1	
Symbios	SY.74	E	Accepted	6.1.1	
Symbios	SY.75	E	Modified	6.1.1	

Table 2: Chart of Ballot Review Comments

Submitter	#	Type	Resolution	Location	Description
Symbios	SY.76	E	Accepted	6.1.1	
Symbios	SY.77	E	Accepted	6.1.2	
Symbios	SY.78	E	Accepted	6.1.2	
Symbios	SY.79	E	Accepted	6.1.2	
Symbios	SY.80	T	Accepted	6.1.2	
Symbios	SY.81	E	Accepted	6.1.2	
Symbios	SY.82	E	Modified	6.1.2	
Symbios	SY.83	T	Modified	6.1.2	
Symbios	SY.84	T	Accepted	6.1.2	
Symbios	SY.85	E	Accepted	6.1.2	
Symbios	SY.86	E	Accepted	6.1.2	
Symbios	SY.87	E	Accepted	6.1.2	
Symbios	SY.88	E	Accepted	6.1.2	
Symbios	SY.89	E	Accepted	6.1.3	
Symbios	SY.90	E	Accepted	6.1.3	
Symbios	SY.91	E	Accepted	6.1.3	
Symbios	SY.92	E	Accepted	6.1.3	
Symbios	SY.93	E	Accepted	6.1.3	
Symbios	SY.94	E	Accepted	6.1.3	
Symbios	SY.95	E	Accepted	6.1.3	
Symbios	SY.96	E	Accepted	6.1.3	
Symbios	SY.97	E	Accepted	6.1.3	
Symbios	SY.98	T	Accepted	6.1.3	
Symbios	SY.99	E	Accepted	6.1.3	
Symbios	SY.100	E	Accepted	6.1.3	

Table 2: Chart of Ballot Review Comments

Submitter	#	Type	Resolution	Location	Description
Symbios	SY.101	T	Accepted	6.1.3	
Symbios	SY.102	E	Accepted	6.1.3	
Symbios	SY.103	E	Accepted	6.1.3	
Symbios	SY.104	T	Accepted	6.1.3	
Symbios	SY.105	E	Accepted	6.1.3	
Symbios	SY.106	E	Accepted	6.1.3	
Symbios	SY.107	E	Accepted	6.1.3	
Symbios	SY.108	E	Accepted	6.1.4	
Symbios	SY.109	E	Accepted	6.1.4	
Symbios	SY.110	E	Accepted	6.1.4	
Symbios	SY.111	E	Accepted	6.1.4	
Symbios	SY.112	T	Accepted	6.1.4	
Symbios	SY.113	E	Accepted	6.1.4	
Symbios	SY.114	E	Accepted	6.1.5	
Symbios	SY.115	E	Accepted	6.1.5	
Symbios	SY.116	E	Accepted	6.1.5	
Symbios	SY.117	T	Accepted	6.1.5	
Symbios	SY.118	E	Accepted	6.1.6	
Symbios	SY.119	E	Accepted	6.1.6	
Symbios	SY.120	E	Accepted	6.1.6	
Symbios	SY.121	E	Accepted	6.1.7	
Symbios	SY.122	E	Accepted	6.1.7	
Symbios	SY.123	T	Accepted	6.1.7	
Symbios	SY.124	T	Accepted	6.1.7	
Symbios	SY.125	E	Accepted	6.1.7	

Table 2: Chart of Ballot Review Comments

Submitter	#	Type	Resolution	Location	Description
Symbios	SY.126	E	Accepted	6.1.7	
Symbios	SY.127	T	Accepted	6.1.7	
Symbios	SY.128	T	Accepted	6.1.7	
Symbios	SY.129	T	Accepted	6.1.7	
Symbios	SY.130	E	Accepted	6.1.7	
Symbios	SY.131	T	Accepted	6.1.7	
Symbios	SY.132	E	Accepted	6.1.7	
Symbios	SY.133	E	Accepted	6.1.8	
Symbios	SY.134	E	Accepted	6.1.8	
Symbios	SY.135	T	Accepted	6.1.8	
Symbios	SY.136	T	Accepted	6.1.8	
Symbios	SY.137	E	Accepted	6.1.8	
Symbios	SY.138	E	Accepted	6.1.8	
Symbios	SY.139	E	Accepted	6.1.8	
Symbios	SY.140	E	Accepted	6.1.9	
Symbios	SY.141	T	Accepted	6.1.9	
Symbios	SY.142	E	Modified	6.1.9	
Symbios	SY.143	E	Accepted	6.1.9	
Symbios	SY.144	E	Accepted	6.1.9	
Symbios	SY.145	E	Accepted	6.1.9	
Symbios	SY.146	E	Accepted	6.1.9	
Symbios	SY.147	E	Accepted	6.1.10	
Symbios	SY.148	T	Accepted	6.1.10	
Symbios	SY.149	E	Accepted	6.1.10	
Symbios	SY.150	E	Accepted	6.1.10	

Table 2: Chart of Ballot Review Comments

Submitter	#	Type	Resolution	Location	Description
Symbios	SY.151	E	Accepted	6.1.10	
Symbios	SY.152	E	Accepted	6.1.11	
Symbios	SY.153	T	Not accepted	6.1.12	
Symbios	SY.154	T	Accepted	6.1.12	
Symbios	SY.155	T	Modified	6.1.12	
Symbios	SY.156	E	Accepted	6.2.1	
Symbios	SY.157	E	Accepted	6.2.1	
Symbios	SY.158	E	Accepted	6.2.1	
Symbios	SY.159	T	Accepted	6.2.1	
Symbios	SY.160	T	Accepted	6.2.1	
Symbios	SY.161	E	Accepted	6.2.1	
Symbios	SY.162	T	Accepted	6.2.1	
Symbios	SY.163	T	Accepted	6.2.1	
Symbios	SY.164	E	Accepted	6.2.1	
Symbios	SY.165	T	Modified	6.2.1	
Symbios	SY.166	E	Accepted	6.2.1	
Symbios	SY.167	E	Accepted	6.2.1	
Symbios	SY.168	E	Modified	7	
Symbios	SY.169	E	Modified	7	
Symbios	SY.170	T	Modified	7	
Symbios	SY.171	E	Accepted	7	
Symbios	SY.172	E	Accepted	7	
Symbios	SY.173	E	Accepted	7.1.1	
Symbios	SY.174	E	Not accepted	7.1.1	
Symbios	SY.175	T	Accepted	7.1.1 and others	

Table 2: Chart of Ballot Review Comments

Submitter	#	Type	Resolution	Location	Description
Symbios	SY.176	T	Modified	7.1.1	
Symbios	SY.177	T	Accepted	7.1.1	
Symbios	SY.178	E	Accepted	7.1.1	
Symbios	SY.179	E	Accepted	7.1.2	
Symbios	SY.180	E	Accepted	7.1.2	
Symbios	SY.181	E	Accepted	7.1.2	
Symbios	SY.182	E	Accepted	7.1.2	
Symbios	SY.183	T	Accepted	7.1.2	
Symbios	SY.184	T	Accepted	7.1.2	
Symbios	SY.185	E	Accepted	7.2.1	
Symbios	SY.186	E	Accepted	7.2.1	
Symbios	SY.187	E	Accepted	7.2.2	
Symbios	SY.188	T	Modified	7.2.2	
Symbios	SY.189	T	Accepted	7.2.2	
Symbios	SY.190	E	Accepted	7.2.2	
Symbios	SY.191	T	Accepted	7.2.2	
Symbios	SY.192	E	Accepted	7.2.2	
Symbios	SY.193	E	Accepted	7.2.2	
Symbios	SY.194	E	Accepted	7.2.2	
Symbios	SY.195	E	Accepted	7.2.2	
Symbios	SY.196	E	Accepted	7.2.2	
Symbios	SY.197	E	Accepted	7.2.3	
Symbios	SY.198	E	Accepted	7.2.3	
Symbios	SY.199	T	Modified	7.2.4	
Symbios	SY.200	E	Accepted	7.2.4	

Table 2: Chart of Ballot Review Comments

Submitter	#	Type	Resolution	Location	Description
Symbios	SY.201	E	Accepted	7.2.4	
Symbios	SY.202	E	Accepted	7.2.4	
Symbios	SY.203	E	Accepted	7.2.4	
Symbios	SY.204	E	Accepted	7.2.5	
Symbios	SY.205	E	Accepted	7.2.5	
Symbios	SY.206	E	Accepted	7.2.6	
Symbios	SY.207	T	Accepted	7.2.6	
Symbios	SY.208	E	Accepted	7.2.6	
Symbios	SY.209	E	Accepted	7.2.6	
Symbios	SY.210	E	Accepted	7.2.8	
Symbios	SY.211	E	Accepted	7.2.8	
Symbios	SY.212	E	Accepted	7.2.8	
Symbios	SY.213	E	Accepted	7.2.8	
Symbios	SY.214	E	Accepted	7.2.8	
Symbios	SY.215	E	Accepted	7.2.8	
Symbios	SY.216	E	Accepted	7.2.8	
Symbios	SY.217	E	Accepted	7.2.8	
Symbios	SY.218	E	Accepted	7.2.8	
Symbios	SY.219	E	Accepted	7.2.8	
Symbios	SY.220	T	Accepted	7.2.8	
Symbios	SY.221	T	Accepted	7.2.8	
Symbios	SY.222	T	Accepted	7.2.8	
Symbios	SY.223	E	Accepted	7.2.9	
Symbios	SY.224	E	Accepted	7.2.9	
Symbios	SY.225	E	Accepted	7.2.9	

Table 2: Chart of Ballot Review Comments

Submitter	#	Type	Resolution	Location	Description
Symbios	SY.226	E	Accepted	7.2.10	
Symbios	SY.227	E	Accepted	7.2.11	
Symbios	SY.228	E	Accepted	7.2.12	
Symbios	SY.229	T	Accepted	7.2.12	
Symbios	SY.230	E	Accepted	7.2.12	
Symbios	SY.231	E	Accepted	7.2.12	
Symbios	SY.232	T	Accepted	7.2.12	
Symbios	SY.233	E	Modified	7.2.12	
Symbios	SY.234	E	Accepted	7.2.12	
Symbios	SY.235	T	Accepted	7.2.16	
Symbios	SY.236	T	Accepted	7.2.16	
Symbios	SY.237	T	Not accepted	7.2.17	
Symbios	SY.238	T	Accepted	7.2.18	
Symbios	SY.239	E	Accepted	7.2.18	
Symbios	SY.240	E	Accepted	7.2.18	
Symbios	SY.241	E	Accepted	7.2.19	
Symbios	SY.242	E	Accepted	7.2.19	
Symbios	SY.243	T	Not accepted	7.2.19	
Symbios	SY.244	T	Not accepted	Annex A	
Symbios	SY.245	E	Accepted	A.1	
Symbios	SY.246	T	Accepted	A.1	
Symbios	SY.247	E	Accepted	A.1	
Symbios	SY.248	E	Accepted	A.2	
Symbios	SY.249	E	Accepted	A.2	
Symbios	SY.250	E	Accepted	A.2	

Table 2: Chart of Ballot Review Comments

Submitter	#	Type	Resolution	Location	Description
Symbios	SY.251	E	Accepted	A.3	
Symbios	SY.252	E	Accepted	A.3	
Symbios	SY.253	E	Accepted	A.3	
Symbios	SY.254	E	Accepted	A.3	
Symbios	SY.255	E	Accepted	A.3	
Symbios	SY.256	E	Accepted	A.3	
Symbios	SY.257	E	Accepted	A.3	
Symbios	SY.258	T	Accepted	A.3	
Symbios	SY.259	E	Accepted	A.3	
Symbios	SY.260	E	Accepted	A.3	
Symbios	SY.261	E	Accepted	A.3	
Symbios	SY.262	E	Accepted	A.3	
Symbios	SY.263	E	Accepted	A.3	
Symbios	SY.264	E	Accepted	A.3	
Symbios	SY.265	E	Accepted	A.3	
Symbios	SY.266	E	Accepted	A.3	
Symbios	SY.267	T	Not accepted	A.3	
Symbios	SY.268	T	Modified	A.3	
Symbios	SY.269	E	Accepted	A.3	
Symbios	SY.270	E	Accepted	A.3	
Symbios	SY.271	E	Accepted	A.4	
Symbios	SY.272	E	Accepted	A.4	
Symbios	SY.273	E	Accepted	A.5	
Symbios	SY.274	T	Accepted	A.5	
Symbios	SY.275	T	Accepted	A.5	

Table 2: Chart of Ballot Review Comments

Submitter	#	Type	Resolution	Location	Description
Symbios	SY.276	E	Accepted	A.6	
Symbios	SY.277	E	Accepted	A.6	
Symbios	SY.278	T	Accepted	A.6	
Symbios	SY.279	E	Accepted	A.7	
Symbios	SY.280	E	Accepted	A.7	
Symbios	SY.281	T	Accepted	A.7	
Symbios	SY.282	T	Accepted	A.7	
Symbios	SY.283	E	Accepted	A.8	
Symbios	SY.284	T	Accepted	A.7	
Symbios	SY.285	E	Accepted	A.9	
Symbios	SY.286	E	Accepted	A.9	
Symbios	SY.287	E	Accepted	A.9	
Symbios	SY.288	E	Accepted	A.9	
Symbios	SY.289	T	Accepted	A.9	
Symbios	SY.290	T	Accepted	A.9	
Symbios	SY.291	E	Accepted	A.10	
Symbios	SY.292	E	Changed	A.10	
Symbios	SY.293	lE	Changed	A.10	
Symbios	SY.294	T	Changed	A.10	
Symbios	SY.295	T	Changed	A.10	
Symbios	SY.296	E	Accepted	A.11	
Symbios	SY.297	E	Accepted	A.11	
Symbios	SY.298	E	Accepted	B.1	
Symbios	SY.299	E	Accepted	B.1	
Symbios	SY.300	E	Accepted	B.1	

Table 2: Chart of Ballot Review Comments

Submitter	#	Type	Resolution	Location	Description
Symbios	SY.301	T	Accepted	B.1	
Symbios	SY.302	E	Accepted	B.1	
Symbios	SY.303	E	Accepted	B.1	
Symbios	SY.304	E	Accepted	B.1	
Symbios	SY.305	E	Accepted	B.1	
Editor	ED.1	T	Accepted	6.1	

3   Ballot Comments

3.1   Comments from Exabyte

Comment E.1

Comment:

The cover sheet has the wrong middle initial for Larry.

Action:

Accept. The text will be changed to Larry J. Lamers

Comment E.2

Comment:

The table locations are confusing. In particular, table 7 follows heading 6.1.4 "Help text page" (probably due to pagination). The table should proceed the new heading.

Action:

Cannot identify this problem in revision 7.0 in PDF format.

Comment E.3

Comment:

Pg 18. In table 8, byte 1 is reserved. In Annex A, this field is used for the Number of sub-enclosures (table A4, pg 63). It is better to identify byte 1 of table 8 as Number of sub-enclosures with a footnote (see table 4, pg 11). Alternatively, a global comment somewhere about that field (an explanation in the model for example) could replace the footnote.

Action:

Accepted

Comment E.4

Comment:

Pg 18. As with comment 6, tables 9 through 11, 13, and 17 should identify byte 1 as the number of sub-enclosures.

Action:

Accepted

Comment E.5

Comment:

Pg 30. The turn disconnect in the explanation of Maximum task completion time in section 6.2.2 on the bottom of pg 30 seems interface dependent. Maybe it should state something about what should happen if the time-out occurs as in "The maximum task completion time indicates the maximum time that a device server shall delay after the associated task becomes current and before the task completes. In the event that the task cannot be completed during that time, the device server shall report CHECK CONDITION with a sense key of NOT READY and an ASC/Q of ENCLOSURE SERVICES UNAVAILABLE" (something like that).

Action:

Accepted.

Comment E.6

Comment:

Pg 41. Missing a space under table 35 "is defined in table 36".

Action:

Accepted

Comment E.7

Comment:

Pg 43. Under 7.2.7, door lock element, table is capitalized in "lock element is defined in Table 40.". Table is not capitalized in like statements throughout the document.

Action:

Accepted.

Comment E.8

Comment:

Pg 47. Should the note on the bottom of the page be a real note as in "Note 1: Failures of the nonvolatile... " and in small font? The statement reads like a real note.

Action:

The text will remove the words "Note that". Accepted.

Comment E.9

Comment:

Pg 48. The battery status field has no value for unknown time but could provide power. Maybe a value of 0 should indicate this with the BATT FAIL field set indicating that the battery is not operating or not available.

Action:

The BATT FAIL should be used to indicate that the battery is not operating. The value of 0 in the battery status field shall be used to indicate that the battery is discharged or that its status is unknown.

Comment E.10

Comment:

Pg 50. Why does disable move around in bit position. In particular, tables 56 and 57 (SCSI port/transceiver for enclosure) has disable in bit 4 of byte 3. Tables 60, 61 (Communication Port element for enclosure) has disable in bit 0 of byte 3. Maybe LSR fail and Disable should be reversed in Tables 56 and 57.

Action:

Not accepted. These bit locations were accepted in previous levels and some implementations have proceeded based on these historic locations. In any case, the programs treating each element are independent, so the actual location of a bit is not too critical in different elements.

Comment E.11

Comment:

Pg 50. For the SCSI port/transceiver element (section 7.2.15, tables 56 and 57, pg 50), the acronyms for transmitter and receiver failures seem to be slanted towards fibre channel. Is it not possible that other interfaces could detect failures? Therefore, using a less interface specific acronym for the field

definition is appropriate. In particular, LOL does not have any text in the definition, other than the name, specific to the interface.

Action:

The abbreviation LOL will be redefined as "Loss of Link" to make it independent of technology. The abbreviation LSR FAIL will be redefined as XMIT FAIL (Transmitter Failure) to indicate that the transmitter circuit has failed or is operating outside its specification, thus making the bit independent of technology.

Comment E.12

Comment:

Pg 51. The language code field seems useless since only one language has been specified. Should the "more common" languages be specified with specific codes in a table? Otherwise, how would a driver pick a language other than ANSI standard?

Action:

The language codes are identified in the following manner:

The language shall be specified using the two-letter lower-case symbols defined by ISO 639:1988. The two letter codes shall be expressed as US-ASCII characters as defined by ISO-8859-1.

If the two characters are 0000h, the language shall be the default of English, using the US-ASCII character set. (Note that Unicode has also defined, but not standardized, a mechanism to encode the 3 character language identifiers of draft ISO 639-2, but this seems like more than is actually needed for a SES device.)

If the two characters contain the ISO639 two character language code, the glyphs shall be encoded using the Unicode standard, UCS-2 canonical form.

The appropriate standards shall be included in the references:

ISO 639:1988 (E/F) "Code for the representation of names of languages."

available from American National Standards Institute, 11 West 42nd Street, 13th floor, New York, NY 10036

ISO 8859-1:1987, "Information processing--8-bit single-byte coded graphic character sets -- Part 1: Latin alphabet No. 1.

available from American National Standards Institute, 11 West 42nd Street, 13th floor, New York, NY 10036

Unicode Standard, Version 2

available from the Unicode Consortium, P.O. Box 700519, San Jose, CA 95170-0519

Comment E.13

Comment:

Pg 53. Why do some elements have disable (see #10) and others enable as in tables 66, 67, 68, 69? Why not use either disable or enable instead of using both?

Action:

In general, the state of disable = 1 is preferred, since the default or zero state is the operating state. Depending on the context, the sense may be reversed. In addition, changes to this document may affect on-going design activities. Each table will be individually considered and changed if desirable.

Comment E.14

Comment:

I like the style of the document for readability. The font usage seems to help clarify the parameter text, both with the field name in bold italic for the paragraph start and with the use of small caps.

Action:

Thank you.

3.2   Comments from IBM

Comment I.1

Comment:

1-(E) page 4 - 3.3.1 - 'one bit field' should be changed to 'single bit field.

Action:

Accepted.

Comment I.2

Comment:

2-(E) page 4 - 3.3.8 - 'one bit field' should be changed to 'single bit field.

Action:

Accepted.

Comment I.3

Comment:

3-(E) page 4 - 3.4 - 3rd paragraph - This is a general statement about using small caps. When using small caps you should not use big caps in any part of the name. For example the s in the status code in this paragraph is a big cap.

Action:

Accepted.

Comment I.4

Comment:

4-(E) page 5 - 4.1 - 1st paragraph - The term 'elements' is used. This term should be defined in the glossary. Also the term 'component' should be defined in the glossary.

Action:

The word "component" shall be removed from the text except where the common English usage is very clear. In place of the word component, the word "element" will be used. The glossary will contain the following definition of element:
"element: An object related to an enclosure. The object can be controlled, interrogated, or described by the enclosure services process."

Comment I.5

Comment:

5-(E) page 5 - 4.1.2 - The term 'port' is not clearly defined.

Action:

The word "port" will be replaced with the word "interface".

Comment I.6

Comment:

6-(E) page 5 - 4.1.2 - It seems there are two ways defined to determine if the enclosure services are supported; by Inquiry and/or a configuration page. Why not only have one way. I would suggest Inquiry be the way.

Action:

The text should be clarified that there are actually 2 steps to verify that an enclosure services process exists behind a device:
a) INQUIRY indicates the device is capable of executing the commands.
b) RECEIVE DIAGNOSTIC RESULTS for the configuration page determines that the enclosure services process exists and is available through that device.

Comment I.7

Comment:

7-(E) page 6 - 4.1.3 - 4th para - You are allowing the 'rounding of values'. Are you sure this is what you want? When rounding is used a check condition must be generated.

Action:

Accepted. The word "set" will be used.

Comment I.8

Comment:

8-(E) page 12 - 6.1.1 - generation code - Put in the hex value of the configuration page.

Action:

Accepted. The word "config page" will be retained in parentheses.

Comment I.9

Comment:

9-(E) page 12 - 6.1.1 - enclosure descriptor length - Make 'product identification' into small caps.

Action:

Accepted.

Comment I.10

Comment:

10-(E) page 12 - 6.1.1 - type descriptor header - Change 'enclosure are listed' to 'enclosure shall be listed'.

Action:

Accepted

Comment I.11

Comment:

11-(E) page 12 - 6.1.1 - type descriptor test - Change '0' to 'zero'.

Action:

Accepted.

Comment I.12

Comment:

12-(E) page 13 - 6.1.2 - Change 'enclosure' to 'Enclosure' in the section title.

Action:

Accepted.

Comment I.13

Comment:

13-(E) page 14 - 6.1.2 - Change 'page code 2' to 'page code 02h'.

Action:

Accepted.

Comment I.14

Comment:

14-(E) page 14 - 6.1.2 - non-crit - The sentence 'If the enclosure services process has not detected a noncritical condition, the non-crit bit may be cleared by any application client.' does seem to make sense. Isn't the enclosure services process on the device server side of things? If so then the statement 'any application client' should be 'any device server'.

Action:

The text should be clarified to precisely carry the actual meaning:
If an application client clears the bit, the status will only be cleared if the enclosure services process has not identified a condition that would set the bit.

Comment I.15

Comment:

15-(E) page 15 - 6.1.2 - crit - See comment 14.

Action:

See comment 14.

Comment I.16

Comment:

16-(E) page 15 - 6.1.2 - un-recov - See comment 14.

Action:

See comment 14.

Comment I.17

Comment:

15-(E) page 15 - 6.1.2 - overall control - In the last sentence the 'should' should be a 'shall'.

Action:

Accepted.

Comment I.18

Comment:

16-(E) page 16 - 6.1.3 - invop - '(invop bit)' should be '(invop)'.

Action:

    Accepted.

Comment I.19

Comment:

    17-(E) page 16 - 6.1.3 - info - '(info bit)' should be '(info)'.

Action:

    Accepted.

Comment I.20

Comment:

    18-(E) page 17 - 6.1.3 - non-crit - 'condition (non-crit)' should be condition bit (non-crit)'.

Action:

    Accepted.

Comment I.21

Comment:

    19-(E) page 17 - 6.1.3 - non-crit, crit, and un-recov - There should be a ', and' at the end of each of the a) statement.

Action:

    Accepted

Comment I.22

Comment:

    20-(E) page 21 - 6.1.7 - 1st paragraph after low critical threshold - In line with my comment on rounding I suggest you change 'round' to 'set'.

Action:

    Accepted

Comment I.23

Comment:

    21-(E) page 21 - 6.1.7 - 2nd to last paragraph - There is no indication as to how the information is reported for those commands that do NOT use check condition to indicate enclosure failures.

Action:

    The first sentence indicates that this information is carried in the enclosure status page. No change is required.

Comment I.24

Comment:

    21-(E) page 21 - 6.1.7 - last paragraph - There is no indication as to how the information is reported for those commands that do NOT use check condition to indicate enclosure failures.

Action:

    The first sentence indicates that this information is carried in the enclosure status page. No change is required.

Comment I.25

Comment:

22-(E) page 29 - 6.1.12 - first para - Move this paragraph to right before table 19.

Action:

Accepted.

Comment I.26

Comment:

23-(E) page 30 - 6.1.12 - last para - Move this paragraph to right before table 21.

Action:

Accepted.

Comment I.27

Comment:

24-(E) page 32 - 7.1 - 2nd para - The sentences 'The enclosure is not required to act on any optional control bit and may ignore or override an control bit if required to maintain a proper operating environment in the enclosure.' should be changed to 'The enclosure is not required to act on any optional control bit. All control bits are advisory and may be ignored or overridden to maintain a proper operating environment in the enclosure.'

Action:

Accepted.

Comment I.28

Comment:

25-(E) page 32 - 7.1.1 - select - Should read 'The select bit (select)'.

Action:

Not Accepted. See I.35

Comment I.29

Comment:

26-(E) page 32 - 7.1.1 - prdfail - Should read 'The predicted failure bit (prdfail)'.

Action:

Accepted.

Comment I.30

Comment:

27-(E) page 32 - 7.1.1 - prdfail - There is no cross reference to the predicted failure state indicator.

Action:

No cross reference is required if "indicator" is properly defined. The glossary will include: "indicator: A machine readable bit that optionally generates an externally visible indication when set."

Comment I.31

Comment:

28-(E) page 32 - 7.1.1 - prdfail - last sentence - 'the bit' should be changed to 'the prdfail bit'.

Action:

    Accepted.

Comment I.32

Comment:

    29-(E) page 32 - 7.1.1 - disable - Should read 'The disable bit (disable)'.

Action:

    Not accepted, see I.35.

Comment I.33

Comment:

    30-(E) page 33 - 7.1.1 - prdfail - Should read 'The predicted failure bit (prdfail)'.

Action:

    Accepted. This change should also be applied to the RST SWAP bit.

Comment I.34

Comment:

    31-(E) page 33 - 7.1.1 - swap - Should read 'The swap bit (swap)'.

Action:

    Not accepted, see I.35.

Comment I.35

Comment:

    32-(E) page 34, 35, and 36 - 7.2.2 - All the bit definitions should be changed to read 'The xxxxxx bit (vvvvv)' where xxxxxx is the english name of the bit and vvvvv is the small caps acronym.

Action:

    The modified format is accepted except for those bits whose whole name is the description. In that case, the format will be: "The xxxx bit is..." This change applies to many of the subsequent comments.

Comment I.36

Comment:

    74-(E) page 35 - 7.2.2 - table 29 - hard address - This field should be renamed to slot address.

Action:

    Accepted.

Comment I.37

Comment:

    75-(E) page 35 - 7.2.2 - hard address - This should be renamed to slot address and the description changed to read: '..the slot address field is set to the value...'

Action:

    Accepted.

Comment I.38

Comment:

33-(E) page 36, 37, 38, and 39 - 7.2.3 - All the bit definitions should be changed to read 'The xxxxxx bit (vvvvv)' where xxxxxx is the english name of the bit and vvvvv is the small caps acronym.

Action:

See I.35.

Comment I.39

Comment:

34-(E) page 39, and 40 - 7.2.4 - All the bit definitions should be changed to read 'The xxxxxx bit (vvvvv)' where xxxxxx is the english name of the bit and vvvvv is the small caps acronym.

Action:

See I.35.

Comment I.40

Comment:

35-(E) page 40 - 7.2.4 - temp warm - Delete paragraph starting with 1=, it looks like left over stuff.

Action:

Accepted.

Comment I.41

Comment:

36-(E) page 41 - 7.2.4 - rqst fail - 'the bit is cleared' should be 'the rqst fail bit is cleared'.

Action:

Accepted.

Comment I.42

Comment:

37-(E) page 41, and 42 - 7.2.5 - All the bit definitions should be changed to read 'The xxxxxx bit (vvvvv)' where xxxxxx is the english name of the bit and vvvvv is the small caps acronym.

Action:

See I.35

Comment I.43

Comment:

38-(E) page 41 - 7.2.5 - rqst on - 'the bit is cleared' should be 'the rqst on bit is cleared'.

Action:

Accepted.

Comment I.44

Comment:

39-(E) page 41 - 7.2.5 - requested speed code - 'code value is' should be 'code field is'.

Action:

Accepted.

Comment I.45

Comment:

40-(E) page 42 - 7.2.5 - actual speed code - 'code indicates the' should be 'code field indicates the'.

Action:

Accepted.

Comment I.46

Comment:

41-(E) page 43 - 7.2.6 - All the bit definitions should be changed to read 'The xxxxxx bit (vvvvv)' where xxxxxx is the english name of the bit and vvvvv is the small caps acronym.

Action:

See I.35.

Comment I.47

Comment:

42-(E) page 43 - 7.2.6 - Remove the ',' from all the bit acronyms.

Action:

Accepted.

Comment I.48

Comment:

43-(E) page 43 - 7.2.6 - ot,failure - ot,warning - ut,failure - ut,warning - 'The bit is cleared' should be 'The xxxxx bit is cleared'.

Action:

Accepted.

Comment I.49

Comment:

44-(E) page 43 - 7.2.6 - ot,failure - ot,warning - ut,failure - ut,warning - 'threshold.' should be 'threshold field (see xxxx).

Action:

The text in these three areas will instead follow this example to convey the same sense.:
"below the safe operating limit or the value specified by the HIGH CRITICAL THRESHOLD field."

Comment I.50

Comment:

44-(E) page 43 - 7.2.6 - ot,failure - ot,warning - ut,failure - ut,warning - 'the xxx xxxx threshold is detected by the' should be the xxx xxxx threshold value is detected by the'. Also, in this case the xxx xxxx threshold should not be in small caps because you are describing the value in the field not stating the fields name.

Action:

Accepted. See I.49

Comment I.51

Comment:

45-(E) page 43 and 44 - 7.2.7 - All the bit definitions should be changed to read 'The xxxxxx bit (vvvvv)' where xxxxxx is the english name of the bit and vvvvv is the small caps acronym.

Action:

See I.35

Comment I.52

Comment:

46-(E) page 43 and 44 - 7.2.7 - unlock - unlocked - 'The bit' should be 'The xxxx bit'.

Action:

Accepted.

Comment I.53

Comment:

47-(E) page 44 and 45 - 7.2.8 - All the bit definitions should be changed to read 'The xxxxxx bit (vvvvv)' where xxxxxx is the english name of the bit and vvvvv is the small caps acronym.

Action:

See I.35. In addition, the names of the tone urgency bits should be modified for clarity.

Comment I.54

Comment:

48-(E) page 44 and 45 - 7.2.8 - info - non-crit - crit - unrecov - There is no definition for the cleared condition of those bits.

Action:

Accepted. Wording will be provided to indicate what happens when the bit is cleared. The model wording for the case of the INFO bit is:

"The INFO bit is cleared to stop requesting the audible alarm to emit the tone."

Comment I.55

Comment:

49-(E) page 44 - 7.2.8 - tone urgency control - 2nd para - The element control field needs a cross reference.

Action:

Accepted. The field should be the TONE URGENCY CONTROL field.

Comment I.56

Comment:

50-(E) page 44 - 7.2.8 - tone urgency control - 3rd para - 'Remind or Muted' should be 'remind or muted'.

Action:

Accepted.

Comment I.57

Comment:

51-(E) page 45 - 7.2.8 - rqst mute - muted - remind - 'The bit' should be 'The xxxx bit'.

Action:

Accepted.

Comment I.58

Comment:

52-(E) page 45 - 7.2.8 - info - non-crit - crit - unrecov - There is no definition for the cleared condition of those bits.

Action:

Accepted. An example of the text is: "The INFO bit is cleared to indicate that the audible tone source is not emitting the tone."

Comment I.59

Comment:

53-(E) page 48 - 7.2.12 - battery status - 'status field is set to indicate the time' should read 'status field indicates'.

Action:

Accepted.

Comment I.60

Comment:

54-(E) page 48 and 49 - 7.2.12 - All the bit definitions should be changed to read 'The xxxxxx bit (vvvvv)' where xxxxxx is the english name of the bit and vvvvv is the small caps acronym.

Action:

See I.35.

Comment I.61

Comment:

55-(E) page 50 - 7.2.15 - All the bit definitions should be changed to read 'The xxxxxx bit (vvvvv)' where xxxxxx is the english name of the bit and vvvvv is the small caps acronym.

Action:

See I.35.

Comment I.62

Comment:

56-(E) page 50 - 7.2.15 - disabled - 'The bit' should be 'The disabled bit'.

Action:

Accepted.

Comment I.63

Comment:

57-(E) page 51 - 7.2.15 - table 59 - language code - Where are the language codes defined?

Action:

Accepted. See E.12.

Comment I.64

Comment:

58-(E) page 52 and 53 - 7.2.18 - All the bit definitions should be changed to read 'The xxxxxx bit (vvvvv)' where xxxxxx is the english name of the bit and vvvvv is the small caps acronym. Some of the field and bits names are not in small caps.

Action:

See I.35. Last sentence is accepted.

Comment I.65

Comment:

59-(E) page 52 - 7.2.18 - table 63 - I suggest changing the name of the voltage value field to voltage. This would change the description of that field to 'The voltage field indicates the... The voltage value is expressed as a 16-bit 2's complement number. (End of description see next comment).

Action:

Accepted.

Comment I.66

Comment:

60-(E) page 52 - 7.2.18 - under table 63 - The following description should be added after voltage: 'sign: The sign bit (sign) is set to indicate the voltage value is a negative value. The sign bit is cleared to indicate the voltage value is a positive value.

Action:

See Sun.5

Comment I.67

Comment:

61-(E) page 52 - 7.2.18 - voltage value (threshold) - This should have the 'voltage value (threshold)' removed and the remaining paragraph moved to above table 63.

Action:

Accepted.

Comment I.68

Comment:

62-(E) page 52 - 7.2.18 - over - under - 'The bit' should be 'The xxxxx bit'.

Action:

Accepted.

Comment I.69

Comment:

63-(E) page 53 - 7.2.19 - All the bit definitions should be changed to read 'The xxxxxx bit (vvvvv)' where xxxxxx is the english name of the bit and vvvvv is the small caps acronym. Some of the field and bits names are not in small caps.

Action:

> See I.35. Last sentence is accepted.

Comment I.70

Comment:

> 64-(E) page 53 - 7.2.19 - table 65 - I suggest changing the name of the current value field to current. This would change the description of that field to 'The current field indicates the... The current value is expressed as a 16-bit 2's complement number. (End of description see next comment).

Action:

> Accepted.

Comment I.71

Comment:

> 65-(E) page 53 - 7.2.19 - under table 65 - The following description should be added after current: 'sign: The sign bit (sign) is set to indicate the current value is a negative value. The sign bit is cleared to indicate the current value is a positive value.

Action:

> See Sun.6

Comment I.72

Comment:

> 66-(E) page 53 - 7.2.19 - voltage value (threshold) - This should have the 'voltage value (threshold)' removed and the remaining paragraph moved to above table 63.

Action:

> Accepted.

Comment I.73

Comment:

> 67-(E) page 53 - 7.2.19 - over - 'The bit' should be 'The over bit'.

Action:

> Accepted.

Comment I.74

Comment:

> 68-(E) page 54 - 7.2.20 - All the bit definitions should be changed to read 'The xxxxxx bit (vvvvv)' where xxxxxx is the english name of the bit and vvvvv is the small caps acronym. Some of the field and bits names are not in small caps.

Action:

> See I.35. Last sentence is accepted.

Comment I.75

Comment:

> 69-(E) page 54 - 7.2.20 - enable - enabled - 'The bit' should be 'The xxxxx bit'.

Action:

> Accepted.

Comment I.76

Comment:

70-(E) page 54 and 55 - 7.2.21 - All the bit definitions should be changed to read 'The xxxxxx bit (vvvvv)' where xxxxxx is the english name of the bit and vvvvv is the small caps acronym. Some of the field and bits names are not in small caps.

Action:

See I.35. Last sentence is accepted.

Comment I.77

Comment:

71-(E) page 54 and 55 - 7.2.21 - enable - enabled - 'The bit' should be 'The xxxxx bit'.

Action:

Accepted.

Comment I.78

Comment:

72-(E) page 55 - 7.2.22 - All the bit definitions should be changed to read 'The xxxxxx bit (vvvvv)' where xxxxxx is the english name of the bit and vvvvv is the small caps acronym. Some of the field and bits names are not in small caps.

Action:

See I.35. Last sentence is accepted.

Comment I.79

Comment:

73-(T) page 55 - annex a - Annex A should be removed from this standard. There is already a way to address sub-enclosures using the SCC model. There is no need to have two methods defined in the SCSI standards to do the same thing.

Action:

After considerable discussion, the working group agreed that Annex A provides a helpful tool for a wide variety of simple multi-enclosure systems. For this reason, the proposal was not accepted. To clarify the text, Figure A.1 will include "SCC" in the title. Additional clarifications to the figures will be made.

3.3   Comments from Seagate

Comment SE.1

Comment:

1) (E) The cover page should be replaced with one matching the X3T10 draft cover page format.

Action:

The technical editor has consulted with the vice chairperson. The present format is acceptable, but may be changed later if required.

Comment SE.2

Comment:

2) (E) On PDF page 8 "INSERT CODE HERE" needs to be replaced.

Action:

Accepted. This is removed, but will eventually contain an appropriate document code.

Comment SE.3

Comment:

3) (E) The table of contents needs minor tweaking for alignment. There are some other editorial nits like this which I am not sure are not just PDF artifacts.

Examples are the lack of space between the Table 1 box and the notes and LUN =81 rather than LUN = 81 in Figure A.1.

Action:

Accepted. The TOC will be adjusted. Table 1 Box spacing will be adjusted. Other small changes may be required.

Comment SE.4

Comment:

4) (E) In the foreword replace "by Task Group X3T10" with "by Technical Committee X3T10" or with "by X3T10".

Action:

Accepted.

Comment SE.5

Comment:

5) (E) In the foreword delete "The standards approval process started in 199n."

Action:

The sentence should be changed to read:
"The standards approval process started in 1996."

Comment SE.6

Comment:

6) (E) The patent statement is misplaced. It should not be in the middle of the X3 membership but should be on the backside of the ANS cover page in a CAUTION statement. In addition this backside page should have the following material:

"American
National
Standard

Approval of an American National Standard requires verification by ANSI that the requirements for due process, consensus, and other criteria for approval have been met by the standards developer. Consensus is established when, in the judgment of the ANSI Board of Standards Review, substantial agreement has been reached by directly and materially affected interests. Substantial agreement means much more than a simple majority, but not necessarily unanimity. Consensus requires that all views and objections be considered, and that effort be made towards their resolution.

The use of American National Standards is completely voluntary; their existence does not in any respect preclude anyone, whether he has approved the standards or not, from manufacturing, marketing, purchasing, or using products, processes, or procedures not conforming to the standards.

The American National Standards Institute does not develop standards and will in no circumstances give interpretation on any American National Standard. Moreover, no person shall have the right or authority to issue an interpretation of an American National Standard in the name of the American National Standards Institute. Requests for interpretations should be addressed to the secretariat or sponsor whose name appears on the title page of this standard.

CAUTION NOTICE: This American National Standard may be revised or withdrawn at any time. The procedures of the American National Standards Institute require that action be taken periodically to reaffirm, revise, or withdraw this standard. Purchasers of American National Standards may receive current information on all standards by calling or writing the American National Standards Institute.

CAUTION: " <<location for the patent statement>>

Action:

Accepted

Comment SE.7

Comment:

7) (E) I don't think the document title should be repeated on the page above SCOPE.

Action:

Not accepted.

Comment SE.8

Comment:

8) (E) I think in the SCOPE "and other elements installed in an enclosure." with "and other non-SCSI elements installed in an enclosure." Also change "and then to set and sense standard bits" to ""and to set and sense standard bits".

Action:

Accepted.

Comment SE.9

Comment:

9) (E) In the normative references "ANSI X3.T10/Project 995-D, Revision 9B, SCSI-3 Primary Commands (SPC)" should be changed to "ANSI X3T10/Project 995-D, Revision 10, SCSI-3 Primary Commands (SPC)". In addition the editor should make a note to change this callout to an X3.XXX callout during the ANSI pre-edits when the SPC number should be available.

Action:

Accepted.

Comment SE.10

Comment:

10) (E) It is not clear how the definition of "see" in 3.1 matches the use of "see" in "See SAM."

Action:

Accepted. The definition will extended.

Comment SE.11

Comment:

11) (E) In 3.1 synonym is defined but it is not used. Delete the definition.

Action:

Accepted.

Comment SE.12

Comment:

12) (E) I am surprised that a fault has to be an accident. I also am unable to successfully contrast it with failure.

Action:

Accepted. The use of fault, failure, and error in this text should be in accordance with standard English usage, so definitions are not required.

Comment SE.13

Comment:

13) (E) As I understand it the italics will need to be changed to other forms of text.

Action:

Text is deleted. Where used, quotation marks will delimit a word being discussed.

Comment SE.14

Comment:

14) (E) Change "3.1.17 logical unit: A target-resident entity which implements a device model and executes SCSI commands sent by an application client." to "3.1.17 logical unit: A target-resident entity which implements a device model and executes SCSI commands originated by an application client."

Action:

Accepted.

Comment SE.15

Comment:

15) (E) There are requirements which apply to a SCSI device when it is not connected, consequently I suggest changing 3.1.19 to "SCSI device: A device that is, or can be, connected to a service delivery subsystem and supports an SCSI application protocol." Ask Larry if this "can" can be used.

Action:

Accepted. The word "is" will be changed to the word "may be"

Comment SE.16

Comment:

16) (E) Change 3.1.23 "vendor specific: Functions, code values, and bits not defined by SES and set aside for private usage between parties using SES.
Caution: Different implementations of SES may assign different meanings to these functions, code values, and bits." to "vendor specific: Functions, code values, and bits not defined by a standard and set aside for private usage between parties using SES. Caution: Different implementations of SES may assign different meanings to these functions, code values, and bits."

Action:

Accepted.

Comment SE.17

Comment:

17) (E) I think 3.3.1 "cleared - A keyword indicating that a value of zero has been placed in a one bit field." should be "cleared - A keyword indicating that a value of zero has been placed in a bit field."

Action:

Accepted. See I.1.

Comment SE.18

Comment:

18) Please ignore. This comment has been deleted. It was a misread and this statement is just to preserve the comment numbering.

Action:

None

Comment SE.19

Comment:

19) (E) Change 3.3.8 to "set - A keyword indicating that a value of one has been placed in a bit field." In comments 16 and 18 if "one" is especially important and needed to be redundant change it to "single".

Action:

Accepted. See I.1.

Comment SE.20

Comment:

20) (E) With ASCII comments it is difficult to illustrate this comment but in 3.4 change the first S in (e.g. STATUS CODE) to a small cap.

Action:

Accepted.

Comment SE.21

Comment:

21) (E) Why are exceptions to precedence convention needed? The standard should only inadvertently have conflicts.

Action:

Accepted.

Comment SE.22

Comment:

22) (E) In 4.1 I think Model should be singular.

Action:

Accepted.

Comment SE.23

Comment:

23) In 4.1.1 change "The commands for this model are described in clause 5." to "The commands for this device type are described in clause 5."

Action:

Accepted.

Comment SE.24

Comment:

24) (E) In 4.1.2 change "SCSI devices use the EncServ (Enclosure Services) bit in the INQUIRY command (see SPC) to indicate that they may transport enclosure services information." to "SCSI devices use the EncServ (Enclosure Services) bit in the INQUIRY command (see SPC) to indicate that they are capable of transporting enclosure services information."

Action:

Accepted. See I.6.

Comment SE.25

Comment:

25) (E) Is the concept of ignoring instructions in 4.1.3 contrary to the congruent with the definition of mandatory (e.g. are bits and other realizations of advisory only instructions adequately distinguished from mandatory requirements)? Does this cause confusion with what invalid means?

Action:

After reviewing the wording, the technical editor proposes that the wording be unchanged. The document appears to be clear.

Comment SE.26

Comment:

26) (T) Is the simple processor capable of evaluating all the invalid fields of 4.1.5?

Action:

The simple processor does not evaluate all the fields. Additional text in 4.1.4 will clarify that control pages will not be expected by the simple enclosure processor and that a CHECK CONDITION with ILLEGAL REQUEST and UNSUPPORTED ENCLOSURE FUNCTION will be posted if control pages are transmitted.

Comment SE.27

Comment:

27) (E) The construction of the note in Table 1 indicates that SES applies only to Fibre Channel devices. I do not think this is intended. Change

"a. The identifier type in the INQUIRY device identification page shall be 3h, indicating that enclosure contains an 8-byte FC-PH name identifier field."

to

"a. If the enclosure contains an 8-byte FC-PH name identifier field, the identifier type in the INQUIRY device identification page shall be 3h."

This is still awkward and I assume those that better understand the requirement can propose what the real if statement should be.

Action:

The note should be deleted, since SPC already defines this condition.

Comment SE.28

Comment:

28) (E) Note c. "All enclosure services control pages shall be transferred by the SEND DIAGNOSTIC command. Device servers are only required to accept a single diagnostic page in each command." Seems confusing. I suggest "Enclosure services control pages shall be transferred by the SEND DIAGNOSTIC command. Device servers are only required to accept a single diagnostic page in each command."

Action:

Accepted.

Comment SE.29

Comment:

29) (E) In Table 2 page codes 40h-7Fh should be reserved.

Action:

This terminology is used by SPC. The terminology of SPC and a reference to SPC should be provided.

Comment SE.30

Comment:

30) (E) If there are no Fibre Channel devices in the enclosure and all the devices are parallel SCSI devices is it appropriate to have the requirement

"ENCLOSURE LOGICAL IDENTIFIER: The ENCLOSURE LOGICAL IDENTIFIER field shall use the world wide name format defined by FC-PH. The ENCLOSURE LOGICAL IDENTIFIER is unique to the enclosure and may be different from the world wide name of the device providing the enclosure services." rather than using the SCSI-3 world wide identifier?

The same comment applies to the sub-enclosure version.

Action:

SCSI-3 defines four different possible identifier structures. The technical editor proposes that only the FC-PH versions of the identifier be used, since the use of other identifiers does not guarantee that the numbers are unique.

Comment SE.31

Comment:

31) (E) In 6.1.7 change "The format of the threshold in page is shown in table 11. Implementation of this page is optional." to "The format of the threshold out page is shown in table 11. Implementation of this page is optional."

Action:

Accepted.

Comment SE.32

Comment:

32) (E) Under Table 11 what specific type does the statement "If the threshold information in the element threshold field is not valid or if individual thresholds for each element are not implemented, the threshold information in the OVERALL THRESHOLD field shall be applied to all elements of that type." refer to?

Action:

The text should be modified to read:
"...shall be applied to all elements described by the same type descriptor header."

Comment SE.33

Comment:

33)(E) Regarding Table 11, if the thresholds values are advisory why is the requirement "shall" of they are exceeded? With advisory requirements it seems like the operative word should be "may" or at most "should".

Action:

The intent is that the field is optional, that the existence of a comparison set point is optional, and that the value of the field is advisory. The actual setpoint is vendor specific and may use the value. If the set point exists and is exceeded, the proper failure or warning shall be reported. The text will be clarified to present this.

Comment SE.34

Comment:

34) (E) A sentence above Table 13 states "The threshold out page is transmitted by the RECEIVE DIAGNOSTIC RESULTS command." I assume this should be "The threshold in page is transmitted by the RECEIVE DIAGNOSTIC RESULTS command."

Action:

Accepted.

Comment SE.35

Comment:

35)(E) I doubt that footnote 2 on page 28 is necessary. Rather than tempt the ANSI editors, why not leave this reference to the bibliography?

Action:

Accepted.

Comment SE.36

Comment:

36)(E) In 6.2.2 is the phrase "The page code selected for the enclosure services management page overlaps with the medium partition 4 page defined for tape drives, " correct or should it be "The page code selected for the enclosure services management page overlaps with the medium partition page code 04h defined for tape drives, "?

Action:

Accepted.

Comment SE.37

Comment:

37) (E) In 7.2.9 what is the purpose of a page that is entirely reserved except for one bit? Same comment for the next table. This comment of course applies to subsequent tables which are entirely reserved.

Action:

Pages like these a reserved as a handle for FRU identification, the byte 0 control and status bits, and for descriptive information. No change is required.

Comment SE.38

Comment:

38) (E) It appears that the Sign bit in Tables 63 and 65 are not defined.

Action:

See SU.4 and SU.6.

Comment SE.39

Comment:

39) (E) Does the sentence "As sub-enclosures are added or deleted from the primary sub-enclosure, the configuration, configuration generation, and relationship between sub-enclosure identifier and sub-enclosure may change." in A.2 require some other qualifier with the last "sub-enclosure"? If not what does the "sub-enclosure" may change mean?

Action:

The text is changed to read:
"..between sub-enclosure identifier and physical sub-enclosure may change."

Comment SE.40

Comment:

40) (E) Regarding the statement below Table A.1 "The portions of the enclosure services configuration page that are added to clause 6.1.1 to support sub-enclosure identifiers are described in table A.2 and described in the text that follows that table." What does "added to clause 6.1.1" mean. This is a normative portion of the standard but this phrase sounds like a revision description. Does it mean "that are in addition to the definitions in clause"?

Action:

The proposed wording is accepted.

Comment SE.41

Comment:

41) (E) In Table A.2 isn't the notation (m+11) more standard than (11+m)? With the first byte being 0, do we all know in this instance whether m is 48 or 49 and is (11+m) the new m or the new byte number?

Action:

The editor proposes using a byte count, which is more clear and general than attempting to make all this work with counts.

Comment SE.42

Comment:

42) (E) What is "p"?

Action:

See SE.41

Comment SE.43

Comment:

43) (E) Regarding A.5 "The help text page is mandatory if any sub-enclosure help text strings are implemented. Any of the help text strings may have a length of 0000h.", if all the help text strings have a length of 0000h are they implemented and does this infer that the help text page is always mandatory? Note the difference in this requirement versus the one for vendor specific in A.7 as well as A.9.

Action:

This appears to be correctly phrased now. No change is required.

Comment SE.44

Comment:

44) (E) Add Length to the last row of Table A.7.

Action:

Accepted.

Comment SE.45

Comment:

45) E) In A.11 is "If an enclosure providing the short status page is used as a sub-enclosure <<on>> a primary sub-enclosure," correct or should it be ""If an enclosure providing the short status page is used as a sub-enclosure <<or>> a primary sub-enclosure,"?

Action:

The text should be "attached to".

Comment SE.46

Comment:

42) (E) In B.1 delete "and distinguished".

Action:

Accepted.

Comment SE.47

Comment:

43) (E) The shall requirements in Annex B need to be eliminated or the Annex needs to be Normative.

Action:

Accepted. The word "should" will be used instead of the word "shall".

Comment SE.48

Comment:

44) (E) Change "ENCLOSURE SERVICES FAILURE: This ENCLOSURE SERVICES FAILURE ASC/ASCQ is provided to indicate that the enclosure services device has failed in an unknown manner." to "ENCLOSURE SERVICES FAILURE: The ENCLOSURE SERVICES FAILURE ASC/ASCQ is provided to indicate that the enclosure services device has failed in an unknown manner."

Action:

Accepted.

Comment SE.49

Comment:

45) (E) Add a statement in Annex B similar to SPC that tells how new ASC/ASCQs are added after publication.

Action:

The text from annex B of SPC will be used.

3.4   Comments from Sun Microsystems

Comment SU.1   Power supply "on" indication

Comment:

Clause 7.2.4
There is no explicit mechanism defined to indicate whether a power supply is actually on or off. I suggest defining byte 3, bit 4 as a status indication labeled ON. The accompanying text should read:

"On: The on bit is set to indicate the power supply is turned on and attempting to provide output. The on bit is cleared to indicate the power supply is turned off and is not attempting to provide output. The presence of certain errors and warnings may cause the power supply to be turned off in a vendor specific manner."

Alternative solutions, including an expansion of the definition of the "not available" status code are also possible, but less desirable.

Action:

The editor recommends the text be changed to the Off indication to treat the normal "on" state as a null condition.
The RST IND indication was noted as not defined. It is used to reset the indicators for power supplies.
During the review, it was noted that the "rqstd on" bit is set either manually or by the control bit "rqst on", but cleared only by the "rqst on" bit being cleared. It should also be cleared if a manual request through a switch is made to turn a supply off.
During the review, it was noted that the same problem exists for the "rqstd on" bit for the cooling element.

Comment SU.2

Comment:

Clause 7.2.16

The values of the language codes should be referenced or specified.

Action:

Accepted. See E.12

Comment SU.3

Comment:

Clause 7.2.18

The voltage sensor does not provide for distinguishing warning and critical threshold violations. Two bits should be added to distinguish these. Byte 1 would then contain:

Byte 1, bit 0	Critical Undervoltage
Byte 1, bit 1	Critical Overvoltage
Byte 1, bit 2	Warning Undervoltage
Byte 1, bit 3	Warning Overvoltage

The text would then indicate:

"Warning overvoltage:The warning overvoltage bit is set to indicate that a warning overvoltage threshold value has been exceeded. The bit is cleared when the overvoltage condition is corrected.

Warning undervoltage:The warning undervoltage bit is set to indicate that a warning undervoltage threshold value has been exceeded. The bit is cleared when the undervoltage condition is corrected.

Critical overvoltage:The critical overvoltage bit is set to indicate that a critical overvoltage threshold value has been exceeded. The bit is cleared when the overvoltage condition is corrected.

Critical undervoltage:The critical undervoltage bit is set to indicate that a critical undervoltage threshold value has been exceeded. The bit is cleared when the undervoltage condition is corrected."

Action:

Accepted.

Comment SU.4   Correct voltage sensor

Comment:

Clause 7.2.18

The description of the 2's complement arithmetic function is not rigorous. The sign bit should be removed from byte 2, bit 7. The text should be modified to read:

"Voltage value: the voltage value indicates the voltage detected by the voltage sensor, measured in units of 10 millivolts. AC voltages are measured in Volts AC, RMS. The value is expressed as a 16-bit number using 2's complement notation to indicate negative numbers. The largest positive voltage that can be expressed is 327.67 volts and the largest negative voltage that can be expressed is -327.67 volts."

Action:

Accepted

Comment SU.5

Comment:

Clause 7.2.19

The current sensor does not provide for distinguishing warning and critical threshold violations. Two bits should be added to distinguish these. Byte 1 would then contain:

Byte 1, bit 1   Critical Overcurrent
Byte 1, bit 3   Warning Overcurrent

The text would then indicate:

"Warning overcurrent:The warning overcurrent bit is set to indicate that a warning overcurrent threshold value has been exceeded. The bit is cleared when the overcurrent condition is corrected.

Critical overcurrent:The critical overcurrent bit is set to indicate that a critical overcurrent threshold value has been exceeded. The bit is cleared when the overcurrent condition is corrected.

Action:

Accepted

Comment SU.6

Comment:

Clause 7.2.19

The description of the 2's complement arithmetic function is not rigorous. The sign bit should be removed from byte 2, bit 7. The text should be modified to read:

"Current value: the current value indicates the current detected by the current sensor, measured in units of 10 milliamps. AC currents are measured in amps AC, RMS. The value is expressed as a 16-bit number using 2's complement notation to indicate negative numbers. The largest positive current that can be expressed is 327.67 amps and the largest negative current that can be expressed is -327.67 amps."

Action:

Accepted.

Comment SU.7

Comment:

Table of Contents, Tables

Several table titles are excessively long and should be shortened as follows:

Table 12:
is   Format for overall threshold field and the element threshold field
s/b   Format for overall threshold and element threshold field

Table 14
is   Format for threshold overall threshold and element threshold fields

s/b	Format for overall threshold and element threshold field

Table 45

is	Enclosure services controller electronics element for enclosure status pages
s/b	ES controller electronics element for enclosure status pages

Action:

Accepted.

Comment SU.8

Comment:

Page xii

The extraneous word "page" should be removed from this page.

Action:

Accepted.

Comment SU.9

Comment:

Foreword

The approval process has begun in 1996. The text "199n" s/b "1996".

Action:

Accepted.

Comment SU.10

Comment:

Introduction

Clause 8 introduction should be removed because of the reformatting of Clause 2.

Action:

Accepted.

Comment SU.11

Comment:

Introduction

Clause 2 introduction should be modified, deleting the word "normative".

Action:

Accepted.

Comment SU.12

Comment:

Introduction

Clause 3 introduction should be rewritten to include other conventions in the following manner:

"Clause 3 describes the definitions, symbols, abbreviations, and other conventions used in this standard."

Action:

Accepted.

Comment SU.13

Comment:

Introduction

The terminology of the functions described in Annex A has been corrected. As a result, the Annex A introduction should be modified in the following manner:

"Annex A is a normative annex that defines an alternate mechanism for accessing enclosure services for sub-enclosures."

Action:

Accepted.

Comment SU.14

Comment:

Clause 2 Normative references

ANSI has provided new standard text for normative references. The clause should be reformatted and modified to match the ANSI recommendation. Clause 8 is deleted and its contents included as part of clause 2 as part of this modification.

Action:

Accepted.

Comment SU.15

Comment:

Clause 3.1

The definitions specified here should be removed and any not included in the document should be removed.

Action:

Accepted.

Comment SU.16

Comment:

Clause 3.1.7

The grammar in this clause should be improved to read:

"enclosure: The box, rack, or set of boxes providing the powering, cooling, mechanical protection, and external electronic interfaces for one or more SCSI devices."

Action:

Accepted.

Comment SU.17

Comment:

Clause 3.1.15

The grammar in this clause should be improved to read:

"Informational Condition: An enclosure condition that should be presented to the application client. The condition is not an error or an abnormal condition and does not reduce the availability of the devices in the enclosure."

Action:

Accepted.

Comment SU.18

Comment:

Clause 4.1.1

A diagram of this type of enclosure services access would be helpful to many people.

Action:

Accepted.

Comment SU.19

Comment:

Clause 4.1.2

A diagram of this type of enclosure services access would be helpful to many people.

Action:

Accepted.

Comment SU.20

Comment:

Clause 4.1.3

The grammar in the last sentence of this clause should be improved to read:

"The actual state is a vendor specific combination of the indications set by the instructions from application clients and the indications established by the enclosure services process."

Action:

Accepted.

Comment SU.21

Comment:

Clause 4.1.5

The grammar in the second from the last sentence in this clause should be improved to read:

"The InvOP (Invalid Operation) bit (see clause 6.1.3) shall be returned in the next enclosure status page or array status page. The initiator receiving the InvOp bit may not be the same initiator that requested the invalid operation."

Action:

Accepted.

Comment SU.22

Comment:

Clause 6.1.1, Table 4

The footnotes to the table should be clarified to read:

"a. The value of Number of sub-enclosures shall be 0. See Annex A for other uses of this field.

b. the value of Sub-enclosure identifier shall be 0. See Annex A for other uses of this field."

Action:

Accepted.

Comment SU.23

Comment:

Clause 6.1.7

The first sentence of the second paragraph references the incorrect page. "threshold out" s/b "threshold in"

Action:

Accepted.

Comment SU.24

Comment:

Clause 6.1.12

The first sentence of the last paragraph should be corrected:

"of an control type page" s/b "of a control type page"

Action:

Accepted.

Comment SU.25

Comment:

Clause 7.2.4

Remove typographic error: "1 = inidcates...shut down."

Action:

Accepted.

Comment SU.26

Comment:

Clause 7.2.8

Set remind should also be mutable. The following sentence should be added to the clause defining set remind.

"When the set mute bit is set, the reminding tone is also muted."

Action:

Accepted.

Comment SU.27

Comment:

Clause 7.2.8

The tone urgency control should be clarified with respect to its behavior when set mute or set remind is set. The following text is added to the second paragraph of the tone urgency control clause:

"... or by the enclosure. The tone control bits set by the enclosure are not reset by the set mute or set remind bits, although the tone emitted by the alarm is modified by the bits."

Action:

    Accepted.

Comment SU.28

Comment:

    Clause 7.2.8

    The tone urgency indicator should be clarified with respect to its behavior when muted or remind is set. The following text is replaces the second paragraph of the tone urgency indicator clause:

    "If all bits are cleared or if the muted bit is set, the audible alarm is silent. If the remind bit is set, the audible alarm tone is modified to the remind tone."

Action:

    Accepted.

Comment SU.29

Comment:

    Clause 7.2.9

    Enclosure Services controller electronics element should be abbreviated where appropriate as ES controller electronics element.

Action:

    Accepted.

Comment SU.30

Comment:

    Clause 7.2.12

    Correct missing right parentheses in the BPF clause.

Action:

    Accepted.

Comment SU.31

Comment:

    Clause A.3

    The following clarifications and typographical corrections should be applied to table A.2

    a)   In the field name, row 16, the text "(in sub-enclosure)" should be removed.

    b)   In the component name column, row 3, the text "sub-" should be removed.

    c)   In the component name column, row 4, the word "enclosure" should be changed to "sub-enclosure".

    d)   The sub-enclosure descriptor header and the sub-enclosure descriptor should be duplicated and one labeled as first, the second as last.

Action:

    Accepted.

Comment SU.32

Comment:

    Clause A.3

In the Enclosure logical identifier (sub-enclosure) clause, the second sentence text "enclosure logical identifier" should be in small caps.

Action:

Accepted.

3.5   Comments from Symbios

Comment SY.1   Extend Generation Code

Comment

#1 (T) General

How does this standard handle (detect) the sending of a control page that does not match the current configuration page? N.B. this is an issue for serial protocols because the delivery of a control page to the device server can be in transit concurrently with the delivery of a unit attention condition to the application client. It may be necessary to require the sender of a control page to include the GENERATION CODE in the control page header fields. The enclosure services process would then validate the GENERATION CODE before processing the control page.

Action:

This proposal is accepted for the enclosure control, threshold out, threshold in, and array control pages. This is not accepted for the string in or string out page.

Comment SY.2

Comment

#2 (T) General

There are many non-normative statements throughout the standard. For example, "The NUMBER OF POSSIBLE ELEMENTS field indicates the number of elements ..." In order to be normative the statement should read, "The NUMBER OF POSSIBLE ELEMENTS field shall contain the number of elements ..."

Some of the comments that follow request changes where the lack of properly phrased requirements is particularly egregious. However, since the lack of normative requirements may be intentional, no attempt has been made to rigorously identify and correct requirement phraseology.

Action:

This comment is accepted as a strong recommendation, especially when describing a behavior.

Comment SY.3

Comment

#3 (E) General

Throughout the document, the words "present", "presents", and "presentation" appear to be used to avoid clearly defining the required actions or operations. Furthermore, these words appear to be used in ways that exceed their common English meaning and in ways that are not technically consistent from one usage to the next. I conclude that the SES usage of these words lacks a workable definition. All occurrences of these words should be replaced with clearly described action or operational requirements. Alternatively, a definition of "present" sufficient to give a solid, consistent meaning to all usages of these words should be added to the glossary.

Action:

Accept. Note that "present" normally means "transfer to application client".

Comment SY.4

Comment

#4 (E) General

Throughout the document references to other document clauses do not conform to ANSI requirements. The word "clause" shall not appear in a reference to another clause, unless the referenced clause number does not contain a period. The following clause references are correct, "see clause 3" and "see 6.1.1". The following clause references are incorrect, "see clause 6.2" and "can be found in clause 6.1.1".

Action:

Accepted. A search will be performed for the offending wording.

Comment SY.5

Comment

#5 (E) pg: xiii, para: 2

pg: xiii, para: 8 "Task Group X3T10" should be "Technical Committee X3T10"

Action:

Accepted.

Comment SY.6

Comment

#6 (T) pg: 1, clause: 2, SPC reference

The SPC reference needs to be restructured to conform to the new ANSI procedure for referencing draft documents, see X3T10/96-199. Or, if we are lucky, SPC will get a BSR number before the next SES draft is prepared.

Action:

Accepted. The BSR number is X3.301.

Comment SY.7

Comment

#7 (T) pg: 2 & 3, clause: 3.1

Based on the existing definitions in 3.1, definitions for the following terms must be added to the glossary: element, application client, abnormal condition, available (and maybe availability), device service request, and operational redundancy.

Action:

The following glossary terms will be added: element (See I.4), application client (from SPC), device service request (from SAM). The following term will be deleted: abnormal condition. Available, availability, and operational redundancy will be removed or defined unless a normal English meaning is intended.

Comment SY.8

Comment

#8 (E) pg: 2, clause: 3.1.8

Change "... maintenance of the enclosed devices." to "... maintenance of devices within an enclosure." This avoids having to define "enclosed devices."

Action:

> Accepted.

Comment SY.9

Comment

> #9 (T) pg: 2, clause: 3.1.10
> Regarding the definition of enclosure services process, to whit: "The object that manages and implements the enclosure services and the device server for the enclosure services device." Is the enclosure services process the same thing as the enclosure services device server, i.e., can the second "and" be replaced with "a.k.a." without changing the meaning of the definition? It also is worth noting that the relationship between the enclosure services process and the enclosure device server is somewhat complex. In the instance where enclosure services are embedded in the device server for some other device type, the enclosure services process would exist but the enclosure device server would not. Recommend describing the relationship between the enclosure services process and the device sever in a separate sentence.

Action:

> Accepted. The following definition of enclosure services process is provided:
> "The object that manages and implements the enclosure services. For an enclosure services device, the enclosure services process also implements the device server."

Comment SY.10

Comment

> #10 (E) pg: 3, clause: 3.1.16
> Change "... by a target SCSI device." to "... by device servers." This change places all terminology in the definition on the same functional level.

Action:

> Accepted.

Comment SY.11

Comment

> #11 (E) pg: 3, clause: 3.1.20
> Change "... extra elements..." to "... duplicate elements..." or to "... duplicated elements..." "Extra" does not suggest any functional relationship between elements, but functional similarity is important to redundancy.

Action:

> The word "extra" will be deleted. Accepted with modifications.

Comment SY.12

Comment

> #12 (E) pg: 3, clause: 3.1.23
> Make "vendor specific" a keyword, not a definition.

Action:

> Accepted.

Comment SY.13

Comment

#13 (E) pg: 3, clause: 3.2.1, acronym Rsvd
Do not capitalize "reserved".

Action:

Accepted.

Comment SY.14

Comment

#14 (T) pg: 4, clause: 3.3.7
Change the last sentence to: "Receipt of reserved code values in defined fields shall be treated as an error or in accordance with future extensions.

Action:

Accepted.

Comment SY.15

Comment

#15 (T) pg: 5, clause: 4.1, para: 1
Regarding the sentence: "Many of the individual components of an enclosure may be removable and replaceable while the unit is continuing to operate." What is the meaning of "unit" in this sentence? Can "unit" be replaced with "enclosure"? If not, add a definition of "unit" to the glossary.

Action:

Accepted. The word "unit" is replaced with the word "enclosure".

Comment SY.16

Comment

#16 (E) pg: 5, clause: 4.1, para: 1
Regarding the sentence: "Many of the individual components of an enclosure may be removable and replaceable while the unit is continuing to operate."
Change "... is continuing to operate." to "... continues to operate."

Action:

Accepted.

Comment SY.17

Comment

#17 (E) pg: 5, clause: 4.1.1, para: 1
Change "... outbound pages..." to "... outbound diagnostic pages..." also change "... inbound pages..." to "... inbound diagnostic pages..." also change "The pages and page formats..." to "The diagnostic pages and page formats...". These changes are necessary to distinguish diagnostic pages from mode pages.

Action:

Accepted.

Comment SY.18

Comment

#18 (T) pg: 5, clause: 4.1.2, para: 1

Change "Such peripheral devices have a port that communicates with the enclosure services process." to "Such peripheral devices have a vendor specific communications connection to the enclosure services process."

Action:

Accepted.

Comment SY.19

Comment

#19 (E) pg: 5, clause: 4.1.2, para: 1

Change "The actual enclosure services device is not visible as a SCSI device, but..." to "The actual enclosure services device is not visible as a SCSI device or logical unit, but...".

Action:

Accepted.

Comment SY.20

Comment

#20 (E) pg: 5, clause: 4.1.2, para: 1

Change "Those devices shall use the same SEND DIAGNOSTIC..." to "Such devices shall use the same SEND DIAGNOSTIC...". "Those" can be synonymous with "those other" to some readers.

Action:

Accepted.

Comment SY.21

Comment

#21 (T) pg: 5, clause: 4.1.2, para: 1

Change "SCSI devices use the EncServ (Enclosure Services) bit in the INQUIRY command (see SPC)..." to "SCSI device servers set the EncServ (Enclosure Services) bit in the standard INQUIRY data (see SPC)...".

First, device servers process commands, not devices. Second, using a bit can mean nothing more that interpreting it, which is not true here. Third, the EncServ bit is in the standard INQUIRY data, not in the INQUIRY CDB.

Action:

Accepted.

Comment SY.22

Comment

#22 (T) pg: 5, clause: 4.1.2, para: 1

The EncServ bit should be set by any device type that supports the enclosure services usage of SEND DIAGNOSTIC and RECEIVE DIAGNOSTIC RESULTS, including devices that report the enclosure services device type.

Action:

Accepted.

Comment SY.23

Comment

#23 (T) pg: 5, clause: 4.1.2, para: 1

Change "If the SCSI device is not able to identify a port to the enclosure services process, an appropriate CHECK CONDITION is posted." to "If the SCSI device is not able to communicate with an enclosure services process, a CHECK CONDITION status is returned and the sense data is set appropriately."

Action:

Accepted.

Comment SY.24

Comment

#24 (T) pg: 5, clause: 4.1.2, para: 1

This clause should discuss support for the enclosure services management mode page by non-enclosure services devices. Is support for the enclosure services management mode page required, suggested, or discouraged?

Action:

The text will indicate that the enclosure services management mode page is not supported by non-enclosure services devices.

Comment SY.25

Comment

#25 (T) pg: 6, clause: 4.1.3, para: 2nd on pg 6

Regarding, "Enclosure services processors may round the values..." Does this refer to parameter rounding as practiced by SCSI devices in many other instances? If yes, then a reference to SPC is in order. If no, the differences from SCSI parameter rounding must be clearly stated somewhere in SES.

Action:

Accepted. See I.7.

Comment SY.26

Comment

#26 (E) pg: 6, clause: 4.1.3, para: 3rd on pg 6

Regarding "The actual state is a vendor specific combination of the state indicators and instructions received from all application clients and the state indicators and functions performed by the enclosure services process." This sentence contains a list of four items separated by three occurrences of the word "and". However, the correct relationship of the four items is unclear. It is even possible that the list is really a two-level hierarchy. Perhaps, a bulleted list should be used.

Action:

Accepted. See SU.20.

Comment SY.27

Comment

#27 (T) pg: 6, clause: 4.1.5, para: 1

Add a definition for Command Descriptor Block to the glossary and the acronym CDB to 3.2.1.

Action:

> Accepted.

Comment SY.28

Comment

> #28 (T) pg: 6, clause: 4.1.5, para: 1
>
> Change "... shall be detected by the enclosure services process." to "... shall be detected by the device server in an enclosure services device." Unless the wording is changed, the first sentences conflicts with the requirements set forth in the remainder of the paragraph.

Action:

> Accepted.

Comment SY.29

Comment

> #29 (T) pg: 6, clause: 4.1.5, para: 1
>
> Change "... and the command shall be terminated with a CHECK CONDITION status." to "... and, if there is an error, the command shall be terminated with a CHECK CONDITION status."

Action:

> Accepted.

Comment SY.30

Comment

> #30 (T) pg: 6, clause: 4.1.5, para: 1
>
> Change "... the additional sense code shall be set to INVALID FIELD IN PARAMETER LIST." to "... the additional sense code shall identify the location of the invalid fields, CDB or parameter data." The beginning of the paragraph requires that both CDB and parameter data be checked. It would be incorrect to set the additional sense code to INVALID FIELD IN PARAMETER LIST if the CDB were in error.

Action:

> Accepted.

Comment SY.31

Comment

> #31 (T) pg: 6, clause: 4.1.5, para: 2
>
> Change "A non-enclosure services device does not..." to "The device server in a non-enclosure services device does not..." Also, change "Instead, the device shall pass..." to "Instead, the device server shall pass...". The device server processes CDBs, not the device.

Action:

> Accepted.

Comment SY.32

Comment

> #32 (E) pg: 6, clause: 4.1.5, para: 2
>
> Replace the last two sentences in the paragraph with: "The enclosure services process shall indicate the recent receipt of invalid CDB or parameter data by setting the InvOp (Invalid Operation) bit in the next enclosure status page or array status page it returns. The page containing the set InvOp bit

shall be returned on receipt of the next RECEIVE DIAGNOSTIC RESULTS command requesting an enclosure status page or array status page, without regard for the initiator that sent the command. No other indication of the invalid data shall be given."

Action:

See SU.21.

Comment SY.33

Comment

#33 (E) pg: 7, clause: 5, table 1, note a

Change "... device identification page..." to "... device identification vital product data page...".

Action:

See SU.22.

Comment SY.34

Comment

#34 (T) pg: 7, clause: 5, table 1, note a

Is the requirement to use the FC-PH identifier acceptable to devices that do not support FC-PH?

Action:

See SE.27.

Comment SY.35

Comment

#35 (E) pg: 7, clause: 5, table 1, notes b & c

Change "... status presentation pages..." to "... inbound diagnostic pages..." and change "... control pages..." to "... outbound diagnostic pages...". The concept of inbound and outbound diagnostic pages already has been introduced in 4.1.1. Inbound and outbound can be used based on their normal English meanings. On the other hand, status and control pages are not introduced conceptually until at least 6.1.2 and the terms cannot be used based on their normal English meaning (glossary definitions would be required).

Action:

Accepted.

Comment SY.36

Comment

#36 (E) pg: 7, clause: 5, paragraph at bottom of page 7

This paragraph should name the clause(s) describing the mode page(s) supported by enclosure services devices.

Action:

Accepted.

Comment SY.37

Comment

#37 (E) pg: 9, clause: 6.1, para: 1

Change "This subclause ..." to "This clause ...".

Action:

Accepted.

Comment SY.38

Comment

#38 (T) pg: 9, clause: 6.1, para: 1

Change "... that are applicable to enclosure services devices." to "... that are applicable to enclosure services devices and other device types that provide communications access to an enclosure services process."

Action:

Accepted.

Comment SY.39

Comment

#39 (T) pg: 9, clause: 6.1, para: 1

Change "Each diagnostic page provides either management or status presentation functions required by the enclosure and the elements within the enclosure." to "Each diagnostic page provides either control (outbound) or status (inbound) data transmission to or from the enclosure process." The word "control" is more consistent with the nomenclature in SES than "management." This is a convenient place to relate "control" to "outbound" and "status" to "inbound". The last half of the rev 7 sentence overstates the range of diagnostic page function. The diagnostic pages provide data communication between the application client and enclosure services process. Beyond that, the interaction with the enclosure and its elements is the responsibility of the enclosure services process. This position is confirmed by SES itself. In several cases, SES states that the enclosure services process may ignore control data for a variety of reasons.

Action:

Accepted.

Comment SY.40

Comment

#40 (T) pg: 9, table 2

Would it be better to use "outbound" and "inbound" in the third column, instead of "control" and "status"?

Action:

No change is required.

Comment SY.41

Comment

#41 (E) pg: 9, table 2

Change the column header "Defining Subclause" to "Reference" (as used elsewhere in SES) or "Clause" (as is used in SPC).

Action:

Accepted.

Comment SY.42

Comment

#42 (T) pg: 9, table 2

Based on the statements made in 6.1.12 I don't see how any row in table 2 can have an M in the "Mandatory or Optional" column.

Action:

The column is removed. Text will indicate which pages are mandatory if short status is not being presented.

Comment SY.43

Comment

#43 (T) pg: 9, table 2

In the row described as "Reserved", change "08h-3Fh" to "09h-3Fh".

Action:

Accepted.

Comment SY.44

Comment

#44 (E) pg: 9, table 2

Add a definition of the "N/A" acronym to 3.2.1.

Action:

No change is required, since the abbreviation is already defined. It may be that the word "not applicable" may need additional clarification. Some of the spaces actually have a reference that will be provided.

Comment SY.45

Comment

#45 (T) pg: 9, clause: 6.1, 1st paragraph after table 2

Regarding: "Check conditions are indicated when a diagnostic command is executed and fails, not when the list of supported pages is generated." First, the phrase "check conditions" has no meaning. SCSI has a condition where the CHECK CONDITION status is returned. But, nowhere in SCSI is the term "check conditions" defined or in anyway related to the returning of a CHECK CONDITION status. Second, non-enclosure services device types do not signal errors with a CHECK CONDITION status. The sentence referenced above cannot refer to non-enclosure services type devices. Third, it would appear that the enclosure status and/or array status pages must always be returned, so that the InvOp bit mechanism will work.

Action:

The last sentence is replaced with the following sentence: "The actual availability of the resources necessary to transfer a page is not tested until a diagnostic command that requests the transfer of an enclosure service page is executed."

Comment SY.46

Comment

#46 (E) pg: 10, clause: 6.1.1, para: 1st on page 10

Change "... text that drivers may use..." to "... text that applications clients may use...". Alternatively, a definition of "drivers" may be added to the glossary.

Action:

The first alternative is accepted.

Comment SY.47

Comment

#47 (E) pg: 11, table 4, notes a & b

Change "For this page,..." to "As described in this clause,...". The phrase "for this page" does not clearly bound the meaning of the notes.

Action:

Both notes are deleted, since the text clearly describes this.

Comment SY.48

Comment

#48 (E) pg: 12, clause: 6.1.1, para: 1st on page 12

Replace the entire description of NUMBER OF SUB-ENCLOSURES with: "Unless sub-enclosures are defined (see Annex A), the NUMBER OF SUB-ENCLOSURES field shall be 0."

Action:

Accepted.

Comment SY.49

Comment

#49 (T) pg: 12, clause: 6.1.1, para: 2nd on page 12

Change "... is incremented by one by the enclosure services device..." to "... is incremented by one by the enclosure services process..."

Action:

Accepted.

Comment SY.50

Comment

#50 (E) pg: 12, clause: 6.1.1, para: 2nd on page 12

Change "... is modified such that the configure page would have changed." to "... is modified such that the configure page changes."

Action:

Accepted.

Comment SY.51

Comment

#51 (T) pg: 12, clause: 6.1.1, para: 2nd on page 12

Change "Enclosures that do not change in configuration use a fixed value..." to "Enclosures that do not change in configuration may use a fixed value...". Surely there should be no absolute statement that a fixed value be used.

Action:

Accepted.

Comment SY.52

Comment

#52 (E) pg: 12, clause: 6.1.1, para: 2nd on page 12

Change "... Unit Attention..." to "... unit attention...". Add a definition for "unit attention condition" to the glossary.

Action:

Accepted.

Comment SY.53

Comment

#53 (T) pg: 12, clause: 6.1.1, para: 2nd on page 12

Regarding "A unit attention condition shall be established...". What is the additional sense code associated with the unit attention condition? Also, are non-enclosure services device types required to establish the unit attention condition?

Action:

Accepted.

Comment SY.54

Comment

#54 (E) pg: 12, clause: 6.1.1, para: 2nd on page 12

The phrase "... occurs for any command except..." is not at all specific regarding the time at which the requirements described in the remainder of the sentence shall take effect. An example of the needed time specificity would be "... occurs during the execution of any command except...".

Action:

Accepted.

Comment SY.55

Comment

#55 (E) pg: 12, clause: 6.1.1, para: 3rd on page 12

Replace the entire description of SUB-ENCLOSURES IDENTIFIER with: "Unless sub-enclosures are defined (see Annex A), the SUB-ENCLOSURES IDENTIFIER field shall be 0."

Action:

Accepted.

Comment SY.56

Comment

#56 (E) pg: 12, clause: 6.1.1, para: 5th on page 12

Change "... number of bytes that follow the enclosure descriptor header." to "... number of bytes contained in the enclosure descriptor."

Action:

Accepted.

Comment SY.57

Comment

#57 (T) pg: 12, clause: 6.1.1, para: 5th on page 12

Change "... having allowed values between 0 and 252." to "... having allowed values between 16 and 252." Clearly, the minimum length of an enclosure descriptor is 16 bytes; ENCLOSURE LOGICAL IDENTIFIER plus ENCLOSURE VENDOR IDENTIFICATION plus PRODUCT IDENTIFICATION plus PRODUCT REVISION LEVEL (4 bytes each).

Action:

> Accepted. The actual minimum value is 40.

Comment SY.58

Comment

> #58 (T) pg: 12, clause: 6.1.1, para: 6th on page 12
>
> Regarding "... shall use the world wide name format defined by FC-PH." See comment #34.

Action:

> The only 8-bit identifier guaranteed unique is that provided by FC-PH, which internally identifies the registration authority. For that reason, this should remain unchanged.

Comment SY.59

Comment

> #59 (E) pg: 12, clause: 6.1.1, para: 11th on page 12
>
> Move the last sentence in the paragraph to between the first and second sentences in the paragraph.

Action:

> Accepted.

Comment SY.60

Comment

> #60 (T) pg: 12, clause: 6.1.1, para: 11th on page 12
>
> Regarding: "The elements of an enclosure are listed in the same order in the configuration page, the type descriptor text of the configuration page, the status page, and the control page." First, shouldn't this be a "shall". Second, there are at least 2 status pages and 2 control pages. To which status page and control page does this statement refer? Third, are any requirements to be placed on the listing order in threshold pages?

Action:

> Accepted.

Comment SY.61

Comment

> #61 (E) pg: 12, clause: 6.1.1, para: 11th on page 12
>
> Change "... shall be specified before..." to "... shall be listed before...".

Action:

> Accepted.

Comment SY.62

Comment

> #62 (E) pg: 12, clause: 6.1.1, para: 11th on page 12
>
> Change "... may be listed in any order by the configuration page." to "... may be listed in any order in the configuration page."

Action:

> Accepted.

Comment SY.63

Comment

#63 (E) pg: 12, clause: 6.1.1, para: 12th on page 12

Change "... device driver..." to "... application client...". Alternatively, a definition for "device driver" may be added to the glossary.

Action:

Accepted.

Comment SY.64

Comment

#64 (E) pg: 12, clause: 6.1.1, para: 12th on page 12

Change "... TYPE DESCRIPTOR TEXT items are placed..." to "... TYPE DESCRIPTOR TEXT items shall be placed...".

Action:

Accepted.

Comment SY.65

Comment

#65 (E) pg: 12, clause: 6.1.1, para: 12th on page 12

Change "... items of 0 length are omitted." to "... items of 0 length shall be omitted."

Action:

Accepted.

Comment SY.66

Comment

#66 (E) pg: 13, clause: 6.1.1, para: 2nd on page 13

Add "(see 7.2.16)" after "... specified by the language element."

Action:

Accepted.

Comment SY.67

Comment

#67 (E) pg: 13, clause: 6.1.1, para: 1st after table 5

Change "... described in that particular header." to "... described in a particular header." The word "that" suggests "that one over there."

Action:

Accepted.

Comment SY.68

Comment

#68 (E) pg: 13, clause: 6.1.1, para: 2nd after table 5

Change "... may exist for a particular element type." to "... may contain a given element type value."

Action:

Accepted.

Comment SY.69

Comment

> #69 (E) pg: 13, clause: 6.1.1, para: 2nd after table 5
>
> Change "... for each of the power supply types since they may have separate text descriptions." to "... for each of the +12 volt and +5 volt power supply types." First, the reader should not be expected to infer that +12 volt power supplies and +5 volt power supplies are different types of power supply. Second, the clarity of the standard is not enhanced by offering an explanation of why more than one type descriptor header may contain a given element type value. Such a condition simply is possible. Let the product designers develop their own understandings of why.

Action:

> Instead of the proposed correction, the following text will be used. "... a separate TYPE DESCRIPTOR HEADER may be used for the +12 volt power supplies and for the +5 volt power supplies.

Comment SY.70

Comment

> #70 (E) pg: 13, clause: 6.1.1, para: 3rd after table 5
>
> Change "... the number of elements of that type..." to "... the number of elements of the named type...". The word "that" suggests "that one over there."

Action:

> Instead of the proposed correction, the text will read "... the number of elements of the indicated type..."

Comment SY.71

Comment

> #71 (E) pg: 13, clause: 6.1.1, para: 3rd after table 5
>
> Replace "... indicating that type fields may be used in other pages, but that no element fields are defined." with "... indicating that only the OVERALL CONTROL, OVERALL STATUS, or OVERALL THRESHOLD field is present in the applicable control, status, or threshold page, but that individual ELEMENT CONTROL, ELEMENT STATUS, or ELEMENT THRESHOLD fields are absent (see 6.1.2, 6.1.3, 6.1.7, 6.1.8, 6.1.9, and 6.1.10)."

Action:

> Accepted.

Comment SY.72

Comment

> #72 (E) pg: 13, clause: 6.1.1, para: 3rd after table 5
>
> Change "... is 255" to "... shall be 255."

Action:

> Accepted.

Comment SY.73

Comment

> #73 (E) pg: 13, clause: 6.1.1, para: 4th after table 5
>
> Change "... normative Annex A." to "... Annex A."

Action:

Accepted.

Comment SY.74

Comment

#74 (E) pg: 13, clause: 6.1.1, para: 5th after table 5

Change "... for the particular element." to "... for the named element."

Action:

Accepted.

Comment SY.75

Comment

#75 (E) pg: 13, clause: 6.1.1, para: 5th after table 5

Change "Any standard type may..." to "Any type descriptor header containing an ELEMENT TYPE value between 00h and 7Fh may...". Alternatively, a definition for "standard type" may be added to the glossary.

Action:

The last two sentences of the paragraph are changed to correctly describe the situation as follows: "Vendor specific element types shall have a TYPE DESCRIPTOR TEXT LENGTH field that is nonzero and shall have a type descriptor text adequate to identify the element to an application client. Other element types may have a TYPE DESCRIPTOR TEXT LENGTH of zero."

Comment SY.76

Comment

#76 (E) pg: 12, clause: 6.1.1, para: 5th after table 5

Change "... device driver..." to "... application client...". Alternatively, a definition for "device driver" may be added to the glossary.

Action:

Accepted.

Comment SY.77

Comment

#77 (E) pg: 13, clause: 6.1.2, para: 1

Change "... the same type defined by..." to "... the same type as defined by...".

Action:

Accepted.

Comment SY.78

Comment

#78 (E) pg: 13, clause: 6.1.2, para: 1

Change "The information allows..." to "The data allows...".

Action:

Accepted.

Comment SY.79

Comment

#79 (E) pg: 13, clause: 6.1.2, para: 1

Change "... control many standard functions..." to "... control many functions...". Alternatively, a definition for "standard function" may be added to the glossary.

Action:

Accepted.

Comment SY.80

Comment

#80 (T) pg: 14, clause: 6.1.2, para: 1st on page 14

Change "The relationship shall be fixed for each enclosure configuration." to "The relationship shall not change unless the GENERATION CODE is incremented (see 6.1.2)."

Action:

Accepted.

Comment SY.81

Comment

#81 (E) pg: 14, clause: 6.1.2, para: 2nd on page 14

Change "... RECEIVE DIAGNOSTIC RESULTS PAGE CODE 2..." to "... RECEIVE DIAGNOSTIC RESULTS command using PAGE CODE 02h...".

Action:

Accepted.

Comment SY.82

Comment

#82 (E) pg: 14, clause: 6.1.2, para: 1st after table 6

Regarding "... detected an unusual condition in the enclosure." Add a definition of "unusual condition" in the glossary.

Action:

The following substitute wording is proposed. "... detected that one or more of the elements in the enclosure are not operating normally."

Comment SY.83

Comment

#83 (T) pg: 14, clause: 6.1.2, para: 2nd after table 6

Regarding "The INFO bit shall be cleared for each initiator when the initiator requests enclosure status or array status." This statement appears to belong in 6.1.3, not in 6.1.2.

Action:

The proposed change does not appear to properly describe the intent of the paragraph. Instead, an explanation will be provided that the INFO bit cannot be cleared by the application client.

Comment SY.84

Comment

#84 (T) pg: 14, clause: 6.1.2, para: 2nd after table 6

Regarding "A copy of the bit shall be maintained for presentation to each initiator known to the enclosure services process." This statement may imply a greater level of initiator knowledge than will be present in all cases. When the enclosure services process is attached to a non-enclosure device server, it would appear that the number of initiators known to the enclosure probably will be one, regardless of the number of initiators that are actually active. If the enclosure services process cannot generate CHECK CONDITION status to report errors, there is every reason to believe that the enclosure services process cannot recognize different initiators.

Action:

Accepted. The last sentence of the paragraph will be replaced with the following text:
"Enclosure services type devices shall maintain a copy of the INFO bit for presentation to each attached initiator. Enclosure services processes which are accessed through another device type may clear the bit after the first request for enclosure status or array status is performed."

Comment SY.85

Comment

#85 (E) pg: 14, clause: 6.1.2, para: 3rd after table 6
In the last line of the paragraph, NON-CRIT has all letters of equal height. In all other instances on page 14, NON-CRIT has the first letter taller than the remaining letters.

Action:

Accepted. All text should be the same size except at the beginning of a sentence or the first word of a label in a table.

Comment SY.86

Comment

#86 (E) pg: 15, clause: 6.1.2, para: 1st on page 15 In the last line of the paragraph, CRIT has all letters of equal height. In all other instances on page 14 and 15, CRIT has the first letter taller than the remaining letters.

Action:

Accepted. All text should be the same size except at the beginning of a sentence or the first word of a label in a table.

Comment SY.87

Comment

#87 (E) pg: 15, clause: 6.1.2, para: 2nd on page 15
In the last line of the paragraph, UN-RECOV has all letters of equal height. In all other instances on page 14 and 15, UN-RECOV has the first letter taller than the remaining letters.

Action:

Accepted. All text should be the same size except at the beginning of a sentence or the first word of a label in a table.

Comment SY.88

Comment

#88 (E) pg: 15, clause: 6.1.2, para: 1st on page 15
Change "... may be applied to either..." to "... may be applied using either...".

Action:

Accepted.

Comment SY.89

Comment

#89 (E) pg: 15, clause: 6.1.3, para: 1

Regarding "... defined by each type descriptor header." "Type descriptor header" should be in small caps.

Action:

Accepted.

Comment SY.90

Comment

#90 (E) pg: 15, clause: 6.1.3, para: 1

Change "... status about many standard functions..." to "... status about many functions...". Alternatively, a definition for "standard function" may be added to the glossary.

Action:

Accepted

Comment SY.91

Comment

#91 (E) pg: 15, clause: 6.1.3, para: 2

Regarding "... described by a type descriptor header." "Type descriptor header" should be in small caps.

Action:

Accepted.

Comment SY.92

Comment

#92 (E) pg: 15, clause: 6.1.3, para: 2

Change "... by the element count value of the configuration page." to "... by the NUMBER OF POSSIBLE ELEMENTS field in the configuration page."

Action:

Accepted.

Comment SY.93

Comment

#93 (E) pg: 15, clause: 6.1.3, para: 2

Change "The relationship shall be fixed for each enclosure configuration." to "The relationship shall not change unless the GENERATION CODE is incremented."

Action:

Accepted.

Comment SY.94

Comment

#94 (E) pg: 16, clause: 6.1.3, para: 1st after table 7

Change "... may be recovered..." to "... may be read...".

Action:

> Accepted.

Comment SY.95

Comment

> #95 (E) pg: 16, clause: 6.1.3, para: 1st after table 7
>
> Change "... length ** 2 ..." where ** is a greater than or equal to sign, to "... length greater than 1 ...".

Action:

> Accepted.

Comment SY.96

Comment

> #96 (T) pg: 16, clause: 6.1.3, para: 1st after table 7
>
> Change "... enclosure services device server..." to "... enclosure services process...". In a non-enclosure device type, there will be no enclosure services device server.

Action:

> Accepted.

Comment SY.97

Comment

> #97 (E) pg: 16, clause: 6.1.3, para: 2nd after table 7
>
> Change "... status page or array status page requested by..." to "... status page or array status page read by...".

Action:

> Accepted.

Comment SY.98

Comment

> #98 (T) pg: 16, clause: 6.1.3, para: 2nd after table 7
>
> Regarding "The INVOP bit shall be set one time in the first enclosure status page or array status page requested by the same application client that transmitted the invalid control page." First, this requirement contradicts the description of the INVOP bit in 4.1.5 (page 6). As noted in comment #84, there is a real possibility that an enclosure services process connected to a non-enclosure services device server may be unable to differentiate between initiators sending commands. Clause 4.1.5 recognizes this limitation, but this requirement does not. Furthermore, it is a well understood SCSI limitation that device servers cannot distinguish between two different application clients running on the same initiator. For all these reasons, this requirement must be relaxed.

Action:

> The principles of this comment are accepted. The following text addresses both this comment and comment SY.99.
>
> "For enclosure service devices, the INVOP bit shall be set one time in the first enclosure status page or array status page read by the same initiator that transmitted the invalid control page. If the application client was notified by a CHECK CONDITION when the SEND DIAGNOSTIC command transmitted the invalid control page, the INVOP bit shall not be set. Enclosure services processes which are accessed through another device type shall set the INVOP bit one time in the first enclosure status or array status page read by any application client."

Comment SY.99

Comment

> #99 (E) pg: 16, clause: 6.1.3, para: 2nd after table 7
>
> Change "... the INVOP bit shall remain cleared." to "... the INVOP bit shall not be set." There is no reason for the requirement to speculate on the existing state of the INVOP bit.

Action:

> Accepted.

Comment SY.100

Comment

> #100 (E) pg: 16, clause: 6.1.3, para: 3rd after table 7
>
> Change "... information conditions..." to "... information conditions (see 3.1.15)...".

Action:

> Accepted.

Comment SY.101

Comment

> #101 (T) pg: 16, clause: 6.1.3, para: 3rd after table 7
>
> Regarding "... since the last time an enclosure status page or array status page was sent to that initiator." See comment #84.

Action:

> Accepted.

Comment SY.102

Comment

> #102 (E) pg: 16, clause: 6.1.3, para: 3rd after table 7
>
> Change "... shall be set as an indication..." to "... shall be set once as an indication...".

Action:

> Accepted.

Comment SY.103

Comment

> #103 (E) pg: 17, clause: 6.1.3, para: 1st in OVERALL STATUS definition
>
> Change "... for each type descriptor in the configuration page." to "... for each TYPE DESCRIPTOR HEADER in the configuration page (see table 4)." Note, this change makes the paragraph read similarly to the equivalent paragraph in the OVERALL CONTROL field description.

Action:

> Accepted.

Comment SY.104

Comment

> #104 (T) pg: 17, clause: 6.1.3, para: 1st in ELEMENT STATUS definition
>
> Change "The number of ELEMENT STATUS fields is the same as..." to "The number of ELEMENT STATUS fields shall be equal to...".

Action:

    Accepted.

Comment SY.105

Comment

#105 (E) pg: 17, clause: 6.1.3, para: 1st in ELEMENT STATUS definition
Change "... corresponding type descriptor header in..." to "... corresponding TYPE DESCRIPTOR HEADER in...".

Action:

    Accepted.

Comment SY.106

Comment

#106 (E) pg: 17, clause: 6.1.3, para: 1st in ELEMENT STATUS definition
Delete the sentence "Each standard element type has a fixed format for its status." Alternatively, a definition of "standard element type" may be added to the glossary. However, adding the definition would still fail to answer the question, "Don't vendor specific element types also have fixed (unchanging) formats for their status?"

Action:

    Accepted.

Comment SY.107

Comment

#107 (E) pg: 17, clause: 6.1.3, para: 2nd in ELEMENT STATUS definition
Delete this one sentence paragraph in its entirety. Instead, add the following sentence to the end of the preceding paragraph: "The general format for an ELEMENT STATUS field is defined by table 24 and clause 7.2.

Action:

    Accepted.

Comment SY.108

Comment

#108 (E) pg: 17, clause: 6.1.4, para: 1
Change "... help text page transmits a string of characters from the enclosure that describes..." to "... help text page contains a string of characters that describes...". The movement of the help text from the enclosure services processor to the application is a transmission of data. However, the help text page contains data.

Action:

    Accepted.

Comment SY.109

Comment

#109 (E) pg: 17, clause: 6.1.4, para: 1
Regarding "The help text page has the standard enclosure services diagnostic page header." SES contains no definition of a "standard enclosure services diagnostic page header. Since table 8 fully

defines the contents of a help text page, the simplest way to resolve the lack of a definition required by this sentence would be to delete the sentence.

Action:
Accepted.

Comment SY.110

Comment

#110 (E) pg: 17, clause: 6.1.4, para: 1
Change "... enclosure independent drivers..." to "... enclosure independent application clients...". Alternatively, a definition of "drivers" may be added to the glossary.

Action:
Accepted.

Comment SY.111

Comment

#111 (E) pg: 17, clause: 6.1.4, para: 1
Change "... defined by the language element." to "... defined by the language element (see 7.2.16)."

Action:
Accepted.

Comment SY.112

Comment

#112 (T) pg: 18, clause: 6.1.4, table 8; pg: 19, clause: 6.1.6, table 10; pg: 22, clause: 6.1.8, table 13
Change "Reserved" in byte 1 to "NUMBER OF SUB-ENCLOSURES (see Annex A)".

Action:
Accepted.

Comment SY.113

Comment

#113 (E) pg: 18, clause: 6.1.4, para: 1st after table 8
Change "... specified by the language element." to "... specified by the language element (see 7.2.16)."

Action:
Accepted.

Comment SY.114

Comment

#114 (E) pg: 18, clause: 6.1.5, para: 1
Change "... from the application client to the enclosure." to "... from the application client to the enclosure services process."

Action:
Accepted.

Comment SY.115

Comment

#115 (E) pg: 18, clause: 6.1.5, para: 1

Change "The format is not specified in this standard." to "The format of the string is vendor specific."

Action:

Accepted.

Comment SY.116

Comment

#116 (E) pg: 18, clause: 6.1.5, para: 1

Add the following at the end of the paragraph: "The request for a page using the RECEIVE DIAGNOSTIC RESULTS command with PAGE CODE 04h is defined as the request for a string in page."

Action:

Accepted.

Comment SY.117

Comment

#117 (T) pg: 18, clause: 6.1.5, table 9; pg: 20, clause: 6.1.7, table 11

Change "Reserved" in byte 1 to "SUB-ENCLOSURE ID (see Annex A)".

Action:

Accepted.

Comment SY.118

Comment

#118 (E) pg: 19, clause: 6.1.6, para: 1

Change "... from enclosure to the application client." to "... from enclosure services process to the application client."

Action:

Accepted.

Comment SY.119

Comment

#119 (E) pg: 19, clause: 6.1.6, para: 1

Change "The format is not specified by this standard." to "The format of the string is vendor specific."

Action:

Accepted.

Comment SY.120

Comment

#120 (E) pg: 19, clause: 6.1.6, para: 1

Add the following at the end of the paragraph: "The transmission of a page using the SEND DIAGNOSTIC command with PAGE CODE 04h is defined as the transmission of a string out page."

Action:

Accepted.

Comment SY.121

Comment

#121 (E) pg: 19, clause: 6.1.7, para: 1

Change "... enclosure services processor..." to "... enclosure services process...".

Action:

Accepted.

Comment SY.122

Comment

#122 (E) pg: 19, clause: 6.1.7, para: 1

Add the following at the end of the paragraph: "The request for a page using the RECEIVE DIAGNOSTIC RESULTS command with PAGE CODE 05h is defined as the request for a threshold in page."

Action:

Accepted.

Comment SY.123

Comment

#123 (T) pg: 20, clause: 6.1.7, para: 1st after table 11

Replace the entire paragraph with: "OVERALL THRESHOLD: The OVERALL THRESHOLD field for each element type has the same format as the corresponding ELEMENT THRESHOLD field. There is exactly one OVERALL THRESHOLD field for each TYPE DESCRIPTOR HEADER in the configuration page (see table 4). The OVERALL THRESHOLD field provides threshold control for all elements described in the ELEMENT THRESHOLD fields. Threshold values may be applied using either the OVERALL THRESHOLD field or the ELEMENT THRESHOLD field. Except as required by the enclosure services processor, requests in the ELEMENT THRESHOLD field should override requests in the OVERALL THRESHOLD field." [[N.B. this text is cloned with minor modifications from the description of the OVERALL CONTROL field on page 15.]]

Action:

Accepted.

Comment SY.124

Comment

#124 (T) pg: 20, clause: 6.1.7, para: 2nd after table 11

Replace the entire paragraph with: "Following the OVERALL THRESHOLD field, there shall be one ELEMENT THRESHOLD field for each of the possible elements identified by the NUMBER OF POSSIBLE ELEMENTS field in the corresponding TYPE DESCRIPTOR HEADER. The ELEMENT THRESHOLD field shall contain threshold information for the element. [[N.B. this text is cloned and modified from the description of the element control field on page 15.]]

Action:

Accepted.

Comment SY.125

Comment

#125 (E) pg: 21, clause: 6.1.7, para: 5th after table 12

Change "The threshold fields are advisory." to "All threshold fields are advisory."

Action:

Accepted.

Comment SY.126

Comment

#126 (E) pg: 21, clause: 6.1.7, para: 5th after table 12

Change "... thresholds, round the specified..." to "... thresholds, may round the specified...". This keeps a consistent sentence flow, notice the "... value, or may ignore..." later in the sentence.

Action:

Accepted.

Comment SY.127

Comment

#127 (T) pg: 21, clause: 6.1.7, para: 5th after table 12

Regarding: "... may round the specified thresholds to more appropriate values...". See comment #25.

Action:

Accepted. See I.22.

Comment SY.128

Comment

#128 (T) pg: 21, clause: 6.1.7, para: 5th after table 12

Regarding: "A threshold field with all four thresholds having a value of zero shall be ignored for that element. This allows individual fields to be modified without the requirement for setting all other fields as the same time." First, "... threshold field..." should be replaced with "... OVERALL THRESHOLD field or ELEMENT THRESHOLD field...". The term "threshold field" might be confused with the HIGH CRITICAL THRESHOLD field. Second, and more importantly, the second sentence does not follow from the first, as is implied by the phrase "This allows". In order to make the second sentence follow from the first, the first sentence would have to say something like: "Any zero value in a field in an OVERALL THRESHOLD field or ELEMENT THRESHOLD field shall be ignored." These two sentences need a careful rewrite.

Action:

Accepted.

Comment SY.129

Comment

#129 (T) pg: 21, clause: 6.1.7, para: 6th after table 12; pg: 23, clause: 6.1.8, para: 7th after table 14

Regarding: "Each 8-bit threshold value shall have the definition specified by the text describing the corresponding element field." What text? Text in the configuration page? Text in this standard? Text in the vendor product documentation? All of the above? This requirement is much too vague to stand as a valid requirement. If the intent is text in this standard, then several additional comments apply. First, X3T10 has a practice of not stating requirements on standards wording using the word "shall." Second, the SES draft fails to honor the spirit of this requirement by inconsistently describing the

threshold value meanings in various obscure places; some in table 22, some at the end of a paragraph in 7.2.6, some in clearly identified paragraphs in 7.2.18 and 7.2.19. A consistent, easily recognizable presentation format must be adopted and used for all instances of threshold field value descriptions. Personally, I prefer the style used in 7.2.18 and 7.2.19.

Action:

Accepted. A reference to table 22 will be provided to indicate those elements having thresholds.

Comment SY.130

Comment

#130 (E) pg: 21, clause: 6.1.7, para: 7th after table 12
Change "... increases to the high critical threshold or falls below the low critical threshold..." to "... increases to the HIGH CRITICAL THRESHOLD field value or falls below the LOW CRITICAL THRESHOLD field value..."

Action:

Accepted.

Comment SY.131

Comment

#131 (T) pg: 21, clause: 6.1.7, para: 7th after table 12; pg: 21, clause: 6.1.7, para: 8th after table 12
Regarding: "For those commands that use CHECK CONDITION to indicate enclosure failures...". First, change "... CHECK CONDITION..." to "... CHECK CONDITION status...". Second, to what commands is this statement referring? To the first command after the event? To enclosure services device types, which in effect, extends the model in 4.1.5 to processing thresholds? (N.B. 4.1.5 places no requirements on processing for conditions that occur when thresholds are exceeded.) This matter needs substantial clarification; certainly here and possibly in 4.1.5.

Action:

Accepted. The following text is provided as a new section, 4.1.6.
4.1.6 Presentation of enclosure failure information
Many enclosure functions are managed simply by setting controls and testing the status of the elements within an enclosure. However, the enclosure services process also monitors a variety of warning and error conditions. These conditions may be communicated to an application client in any of the following 4 ways.
4.1.6.1 Polling
The application client may periodically poll the enclosure by executing a READ DIAGNOSTIC RESULTS command requesting an enclosure status page or an array status page with a minimum allocation length greater than 1. The information returned in byte 1 of the appropriate page includes 5 bits that summarize the status of the enclosure and its elements as described in 6.1.3 and 6.1.10. Detailed information may then be obtained by the application client by executing a READ DIAGNOSTIC RESULTS command requesting a complete enclosure status page, array status page, or help text page.
4.1.6.2. Timed Disconnect Polling
The application client may enable the optional timed disconnect function using the enclosure services management mode page. The application client may then periodically poll the enclosure by executing a READ DIAGNOSTIC RESULTS command requesting an enclosure status page or array status page with a minimum allocation length greater than 1. The return of the page may be delayed until one or more of the bits in byte 1 of the page is set, indicating that information is

available in the page. The command shall be completed by the enclosure services device before the MAXIMUM TASK COMPLETION TIME is exceeded. This polling option allows the application client to access warning and error information at a time closer to the detection of the information by the enclosure services process.

4.1.6.3 CHECK CONDITION

For commands other than READ DIAGNOSTIC RESULTS and REQUEST SENSE executed to an enclosure services type device the device server may indicate invalid operations, warning conditions, and failure conditions by terminating the command with CHECK CONDITION status. The sense key and additional sense code shall define the nature of the indication. Subsequent execution of a READ DIAGNOSTIC RESULTS command requesting an enclosure status or an array status page may be required to clarify the indication and to identify the element causing the indication. The device may use the rules defined for informational exception conditions defined by SPC to indicate conditions that do not require any recovery action.

Commands executed on devices other than enclosure services devices shall not terminate with CHECK CONDITION status to indicate the presence of information from the enclosure services process. Application clients shall use polling to access the enclosure information from through such devices.

4.1.6.4 Asynchronous Event Reporting

Enclosure services devices may use the asynchronous event reporting function to execute a SEND command with the AER bit set. (See SPC). The SEND command contains the sense key and additional sense code that defines the reason for the notification as defined in SPC. Subsequent execution of a READ DIAGNOSTIC RESULTS command requesting an enclosure status or an array status page may be required to clarify the indication and to identify the element causing the indication.

Devices other than enclosure services devices attached to initiators capable of receiving a SEND command shall not use asynchronous event reporting.

Comment SY.132

Comment

#132 (E) pg: 21, clause: 6.1.7, para: 8th after table 12

Change "... increases to the high warning threshold or falls below the low warning threshold..." to "... increases to the HIGH WARNING THRESHOLD field value or falls below the LOW WARNING THRESHOLD field value..."

Action:

Accepted.

Comment SY.133

Comment

#133 (E) pg: 22, clause: 6.1.8, para: 1st on page 22

Change "... enclosure services processor..." to "... enclosure services process to the application client...".

Action:

Accepted.

Comment SY.134

Comment

#134 (E) pg: 22, clause: 6.1.8, para: 1st on page 22

Add the following at the end of the paragraph: "The transmission of a page using the SEND DIAGNOSTIC command with PAGE CODE 05h is defined as the transmission of a threshold out page."

Action:

Accepted.

Comment SY.135

Comment

#135 (T) pg: 22, clause: 6.1.8, para: 1st after table 13

Replace the entire paragraph with: "OVERALL THRESHOLD: The OVERALL THRESHOLD field for each element type has the same format as the corresponding ELEMENT THRESHOLD field. There is exactly one OVERALL THRESHOLD field for each TYPE DESCRIPTOR HEADER in the configuration page (see table 4). The OVERALL THRESHOLD optionally contains a summary of the threshold values for all of the elements of that type. The OVERALL THRESHOLD also may be used to contain the threshold values for those elements whose individual threshold values are not available, but that do have threshold values.

Action:

Accepted.

Comment SY.136

Comment

#136 (T) pg: 22, clause: 6.1.8, para: 1st after table 13

Replace the entire paragraph with: "ELEMENT THRESHOLD: Zero or more ELEMENT THRESHOLD fields immediately follow the OVERALL THRESHOLD field for the element type. The number of ELEMENT THRESHOLD fields shall equal the value contained in NUMBER OF POSSIBLE ELEMENTS field in the corresponding TYPE DESCRIPTOR HEADER in the configuration page. Each element threshold field optionally contains the threshold values for the particular element.

Action:

Accepted.

Comment SY.137

Comment

#137 (E) pg: 23, clause: 6.1.8, para: 1st after table 14; pg: 23, clause: 6.1.8, para: 2nd after table 14 pg: 23, clause: 6.1.8, para: 3rd after table 14; pg: 23, clause: 6.1.8, para: 4th after table 14

Regarding: "... field indicates the current value at which...". Only the current value? Not the voltage value or temperature value? Suggest deleting the word "current". Perhaps a synonym replacement could be found, but I can't think of one.

Action:

Accepted.

Comment SY.138

Comment

#138 (E) pg: 23, clause: 6.1.8, para: 5th after table 14

Delete this entire one-sentence paragraph. The information it contains is already stated in the previous four paragraphs.

Action:

Accepted.

Comment SY.139

Comment

#139 (E) pg: 23, clause: 6.1.8, para: 5th after table 14

Regarding: "The advisory values provided by the threshold out page may have been rounded or ignored by the enclosure processor in preparing the current values." This statement belongs in the description of the threshold out page (where fortunately it already appears). It does not belong in the description of the threshold in page.

Action:

Accepted.

Comment SY.140

Comment

#140 (E) pg: 23, clause: 6.1.9, para: 1

Change "... the enclosure control page's device elements and the array control page's device elements..." to "... the enclosure control page's device elements (see 7.2.2) and the array control page's device elements (see 7.2.3)...".

Action:

Accepted.

Comment SY.141

Comment

#141 (T) pg: 23, clause: 6.1.9, para: 1

Change "... the state of the element or device bay shall be expressed..." to "... the state of the device element shall be expressed...". Also, change "... of the two conditions." to "... of the two page settings."

Action:

Accepted.

Comment SY.142

Comment

#142 (E) pg: 24, clause: 6.1.9, para: 1st on page 24; pg: 25, clause: 6.1.10, para: 3

Regarding: "... that defines a device type element...". Add a definition for "device type element" to the glossary.

Action:

The text should use the words: "device element".

Comment SY.143

Comment

#143 (E) pg: 24, clause: 6.1.9, para: 2nd on page 24

Change "Only device elements (see clause 7.2.3)..." to "Only device elements...". The clause reference was added to an earlier paragraph by comment #140.

Action:

Accepted.

Comment SY.144

Comment

> #144 (E) pg: 24, clause: 6.1.9, para: 2nd on page 24
>
> Regarding: "The device elements are in the same order as the device elements in the enclosure control pages." Statements made in the description of the configuration page appear to make this statement redundant. If this statement is not removed, two other questions must be asked. First, would it not be prudent to change "are" to "shall be"? Second, should not "pages" be "page"?

Action:

> The second alternative is accepted.

Comment SY.145

Comment

> #145 (E) pg: 24, clause: 6.1.9, para: 3rd on page 24
>
> Change "... RECEIVE DIAGNOSTIC RESULTS PAGE CODE 06h..." to "... RECEIVE DIAGNOSTIC RESULTS using PAGE CODE 06h...".

Action:

> Accepted.

Comment SY.146

Comment

> #146 (E) pg: 24, clause: 6.1.9, para: 2nd after table 15
>
> Change "... may be applied to either the overall control..." to "... may be applied using either the overall control...".

Action:

> Accepted.

Comment SY.147

Comment

> #147 (E) pg: 25, clause: 6.1.10, para: 2
>
> Change "... the enclosure status page's device elements and the array status page's device elements..." to "... the enclosure status page's device elements (see 7.2.2) and the array status page's device elements (see 7.2.3)...".

Action:

> Accepted.

Comment SY.148

Comment

> #148 (T) pg: 25, clause: 6.1.10, para: 2
>
> Change "In those cases, the state of the device shall be expressed by the logical 'OR' of the two conditions." to "In those cases, the state of the device shall be reported similarly in both pages."

Action:

> Accepted.

Comment SY.149

Comment

#149 (E) pg: 25, clause: 6.1.10, para: 4

Change "Only device elements (see clause 7.2.3)..." to "Only device elements...". The clause reference was added to an earlier paragraph by comment #147.

Action:

Accepted.

Comment SY.150

Comment

#150 (E) pg: 25, clause: 6.1.10, para: 4

Regarding: "The device elements are in the same order as the device elements in the enclosure status pages." Statements made in the description of the configuration page appear to make this statement redundant. If this statement is not removed, two other questions must be asked. First, would it not be prudent to change "are" to "shall be"? Second, should not "pages" be "page"?

Action:

Accepted. The word "are" will be replaced with "shall be" and the word "pages" will be replaced with "page".

Comment SY.151

Comment

#151 (E) pg: 25, clause: 6.1.10, para: 5

Change "The transmission of a page with PAGE CODE 06h..." to "The transmission of a SEND DIAGNOSTIC command with PAGE CODE 06h...".

Action:

Accepted.

Comment SY.152

Comment

#152 (E) pg: 26, clause: 6.1.11, para: 1

Add the following at the end of the paragraph. "The element descriptor page shall be read by the RECEIVE DIAGNOSTIC RESULTS command. If a SEND DIAGNOSTIC command is transmitted using a PAGE CODE of 07h, the command shall be terminated with CHECK CONDITION status. The sense key shall be set to ILLEGAL REQUEST and the additional sense code shall be set to INVALID FIELD IN PARAMETER LIST."

Action:

Accepted.

Comment SY.153

Comment

#153 (T) pg: 28, clause: 6.1.12

Why report anything? There is nothing standard in the short enclosure status page except the page code.

Action:

The short enclosure status page provides a standard mechanism for accessing vendor specific

information from an enclosure that has only a few bits of enclosure status information to present. If an enclosure cannot report anything, it provides a CHECK CONDITION, followed by an appropriate ASC/ASCQ. No change is required in the text.

Comment SY.154

Comment

#154 (T) pg: 28, clause: 6.1.12, para: 1

Regarding: "It shall not be an error to respond with a short status page when another enclosure services page has been requested by a RECEIVE DIAGNOSTIC RESULTS command (see SPC)." What information does SPC provide that justifies referring to it here? SPC requires that the page code in the CDB specify the format of the parameter data returned. So, the SES requirement could be viewed as conflicting with the SPC requirement, which is another reason for questioning the reference to SPC here. Recommend removal of "(see SPC)".

Action:

Accepted.

Comment SY.155

Comment

#155 (T) pg: 29, clause: 6.1.12, para: 1st on page 29

Regarding "Transmission of an control type page (...) to an enclosure processor that reports the short enclosure status page results in unpredictable behavior." First, change "an control page" to "a control page". Second, change "enclosure processor" to "enclosure services process". Most importantly, however, the behavior associated with a control page under these conditions is not unpredictable. The next two sentences predict the behavior in exact detail.

Action:

The text is modified to respond to the comment in the following manner:
A SEND DIAGNOSTIC command transmitting an enclosure control, array control, string out, or threshold out page to an enclosure services process that reports the short enclosure status page shall be terminated with a CHECK CONDITION status. The sense key shall be set to NOT READY and the additional sense code shall be set to UNSPECIFIED ENCLOSURE SERVICES FAILURE or UNSUPPORTED ENCLOSURE FUNCTION.

Comment SY.156

Comment

#156 (E) pg: 29, clause: 6.2.1, para: 1

Change "This subclause..." to "This clause...".

Action:

Accepted.

Comment SY.157

Comment

#157 (E) pg: 29, clause: 6.2.1, para: immediately before table 20

Delete the line that contains only a period.

Action:

Accepted.

Comment SY.158

Comment

#158 (E) pg: 29, clause: 6.2.1, table 20
Change "Defining Clause" to "Reference".

Action:

Accepted.

Comment SY.159

Comment

#159 (T) pg: 29, clause: 6.2.1, para: 2nd after table 20
Additional text should be added to describe how device types other than stream and enclosure handle or may handle the enclosure services management mode page. For example, how do block device types handle the enclosure services management mode page?

Action:

Accepted. The following text is appended to the second paragraph of 6.2.2.
Devices other than enclosure services devices and tape devices may implement this page and use the timed disconnect feature if their interface to the enclosure services process allows this capability.

Comment SY.160

Comment

#160 (T) pg: 30, clause: 6.2.1, para: 2nd after table 21
Add the following at the end of the paragraph: "The PAGE CODE field shall have a value of 14h for the enclosure services management page." If SES is going to specify the value in the PAGE LENGTH field, then it can just as well specify the value in the page CODE FIELD.

Action:

Accepted.

Comment SY.161

Comment

#161 (E) pg: 30, clause: 6.2.1, para: 3rd after table 21
Change "... for enclosure services devices." to "... for the enclosure services management page."

Action:

Accepted.

Comment SY.162

Comment

#162 (T) pg: 30, clause: 6.2.1, para: 4th after table 21
The TD bit is not required. SES should employ the usual SCSI way to indicate that a mode page function is not implemented. If the time disconnect function is not implemented, then the device server should return ENBLTD equal to zero and report that the bit is not changeable.

Action:

Accepted.

Comment SY.163

Comment

#163 (T) pg: 30, clause: 6.2.1, para: 5th after table 21
Delete the sentence: "The application client uses the ENBLTD to enable or disable the used of the timed disconnect function by the device server." SCSI standards specify the actions when a bit is set or cleared. Typically, they do not include commentary on why the bit definition exists.

Action:

Accepted.

Comment SY.164

Comment

#164 (E) pg: 30, clause: 6.2.1, para: 6th after table 21
Place "maximum task completion time" in small caps, matching those in table 21. Correct this in two instances in the paragraph.

Action:

Accepted.

Comment SY.165

Comment

#165 (T) pg: 30, clause: 6.2.1, para: 6th after table 21
If ENBLTD is set and MAXIMUM TASK COMPLETION TIME is zero, what actions are required of the device server. N.B. without wording covering this condition, one would have to conclude that ENBLTD being set and MAXIMUM TASK COMPLETION TIME being zero is the same as ENBLTD being cleared. We assume that the intent is that zero specify an infinite maximum wait time.

Action:

The following sentence is appended to the paragraph:
A value of zero specifies a vendor specific MAXIMUM TASK COMPLETION TIME, which may be infinite.

Comment SY.166

Comment

#166 (E) pg: 30, clause: 6.2.1, para: 7th after table 21
Throughout the paragraph change "... device..." to "... device server...". There are four occurrences of "device" to be changed in the paragraph.

Action:

Accepted.

Comment SY.167

Comment

#167 (E) pg: 30, clause: 6.2.1, para: 7th after table 21
Change "... ENBLTD bit has been set, to enable timed disconnect, the device may..." to "... ENBLTD bit has been set the device server may...".

Action:

Accepted.

Comment SY.168

Comment

#168 (E) pg: 31, clause: 7, para: 1

Replace the first sentence with: "This clause contains the format definitions for the OVERALL CONTROL, ELEMENT CONTROL, OVERALL STATUS, ELEMENT STATUS, OVERALL THRESHOLD, and ELEMENT THRESHOLD fields. The field formats generally are different for different element types. Field format definitions common to all element types and specific to different element types are contained in this clause."

The existing first sentence is totally inadequate, unclear, or incorrect. The following are examples of problems with the existing first sentence. What is a "standard element type"? What does "environmental services" mean in the context of SES (glossary definition probably required)?

Action:

The paragraph will instead be replaced with the following, resolving comments SY.168, SY.169, and SY.170:

This clause contains the format definitions for the OVERALL CONTROL, ELEMENT CONTROL, OVERALL STATUS, and ELEMENT STATUS fields. The field formats generally are different for different element types. Field format definitions common to all element types and specific to different element types are contained in this clause. The definition of the OVERALL THRESHOLD and ELEMENT THRESHOLD fields are defined for those elements supporting threshold values.

Table 22 lists the elements and their ELEMENT TYPE codes. The table additionally indicates which elements accept the DISABLE bit (See 7.1.1) and which elements contain a value subject to comparison with a threshold.

Comment SY.169

Comment

#169 (E) pg: 31, clause: 7, para: 1

Regarding: "Table 22 lists the element type codes and elements for the configuration page." While the element type code does appear in the configuration page, the element type does not.

Action:

Accepted. See SY.168

Comment SY.170

Comment

#170 (T) pg: 31, clause: 7, para: 1

At the end of the paragraph, add wording that describes the contents and meaning of the "DISABLE bit" and "Threshold" columns in table 22.

Action:

Accepted. See SY. 168.

Comment SY.171

Comment

#171 (E) pg: 31, clause: 7, Table 22

Be sure the usage of "N/A" in table 22 matches the acronym definition added as a result of comment #44.

Action:

    Accepted. The value N/A will be changed to "none".

Comment SY.172

Comment

    #172 (E) pg: 31, clause: 7, Table 22

    Change "voltage" to "%voltage" and change "current" to "%current".

Action:

    Accepted.

Comment SY.173

Comment

    #173 (T) pg: 32, clause: 7.1.1, para: 1st after table 23

    Replace the first sentence with: "If the SELECT bit is set, the enclosure services process should perform the control functions defined by the other bits in the OVERALL CONTROL or ELEMENT CONTROL field. If the SELECT bit is cleared, the enclosure services process shall ignore all other bits in the OVERALL CONTROL or ELEMENT CONTROL field.

Action:

    Accepted.

Comment SY.174

Comment

    #174 (E) pg: 32, clause: 7.1.1, para: 3rd after table 23

    Change "... is specific to the element." to "... is vendor specific."

Action:

    The actual behavior of the element is not vendor specific, except insofar as implementation of the disable bit, like most bits in this document, is optional. The behavior will be specified in the element definitions where it is not already.

Comment SY.175

Comment

    #175 (T) pg: 32, clause: 7.1.1, para: 3rd after table 23

    Regarding: "The individual element description indicates how the bit is interpreted for those elements that implement the function." It appears that table 22 contains the only descriptive information about the DISABLE bit. None of the clauses for which table 22 shows potential usage of the DISABLE bit contain any obvious discussion of the bit. Beyond these larger considerations, the sentence has several editorial problems. SES contains no "element descriptions" only descriptions of parameter data formats for various element types. "The function" is non-specific. Presumably, "implement the function" means "allow an element to be disabled."

Action:

    Accepted. This affects several element definitions. Sample wording for 7.2.6 is:

    When the DISABLE bit (see 7.1.1) is set, the temperature sensor's output is not tested against any threshold values and no non-critical, critical, or unrecoverable conditions are indicated because of the temperature values sensed. When the DISABLE bit is cleared, the temperature sensor's output is accepted normally by the enclosure services process.

Comment SY.176

Comment

#176 (T) pg: 32, clause: 7.1.1, para: 4th after table 23

Regarding: "The RST SWAP bit is cleared automatically when the SWAP status bit is cleared." The RST SWAP bit is a bit in parameter data setup by the application client and sent to the device server. This sentence seems to say that the device server reaches into the parameter data memory of the application client and clears the RST SWAP bit. It is impossible for the device server to perform such an action.

Action:

The text will be clarified to say:

The reset swap (RSTSWAP) bit is set to clear the SWAP bit one time if the SWAP bit is set.

Comment SY.177

Comment

#177 (T) pg: 32, clause: 7.1.1, para: 4th after table 23

Change "If the RST SWAP bit is 0, there is no effect on the SWAP bit." to "If the RST SWAP bit is 0, the SWAP bit shall not be changed."

Action:

Accepted.

Comment SY.178

Comment

#178 (E) pg: 32, clause: 7.1.1, para: 5th after table 23

Change "... may cause the enclosure services process to present the INVOP bit." to "... may cause the enclosure services process to set the INVOP bit."

Action:

Accepted.

Comment SY.179

Comment

#179 (E) pg: 33, clause: 7.1.2, para: 1st on page 33

Change "The PRDFAIL bit, when clear, shall indicate..." to "The PRDFAIL bit, when clear, indicates...". Or, change "The PRDFAIL bit, when set, indicates..." to "The PRDFAIL bit, when set, shall indicate...".

Action:

The first alternative is accepted.

Comment SY.180

Comment

#180 (E) pg: 33, clause: 7.1.2, para: 2nd on page 33

Change "... since the last time the RST SWAP control bit has been set." to "... since the last time the RST SWAP control bit was set in the corresponding control field."

Action:

Accepted.

Comment SY.181

Comment

#181 (E) pg: 33, clause: 7.1.2, para: 2nd on page 33

Change "The SWAP bit is cleared when the RST SWAP control bit has been set..." to "The SWAP bit is cleared when the RST SWAP control bit is set...".

Action:

Accepted.

Comment SY.182

Comment

#182 (E) pg: 33, clause: 7.1.2, para: 2nd on page 33

Change "... and elements properties..." to "... and element's properties...".

Action:

Accepted.

Comment SY.183

Comment

#183 (T) pg: 33, clause: 7.1.2, para: 1st on page 33

Add suitable text at the end of the paragraph to describe the meaning of STATUS CODE when it appears in an OVERALL STATUS field.

Action:

Accepted. The last sentence is modified and an additional sentence is provided:

The STATUS CODE values apply to ELEMENT STATUS fields. The OVERALL STATUS fields shall have a status code of 00h (unsupported).

Comment SY.184

Comment

#184 (T) pg: 33, clause: 7.1.2, table 25

Add entries defining the usage for STATUS CODE values 08h through 0Fh. Are these values reserved, or vendor specific? Are some values reserved and others vendor specific?

Action:

Accepted. The values will be identified as reserved.

Comment SY.185

Comment

#185 (E) pg: 33-55, clause: 7.2.1 through 7.2.22, every even numbered table between 26 and 70 (except table 36).

Add byte 0 to each table with the description "see table 23".

N.B. This change is believed to be critical to giving all readers the same interpretation of SES control field contents.

Action:

After reconsideration of a previous rejection of this concept, this comment is accepted. Note that the titles need to be corrected for consistency.

Comment SY.186

Comment

#186 (E) pg: 34-55, clause: 7.2.1 through 7.2.22, every odd numbered table between 27 and 71 (except tables 35 and 37) and table 36.
Add byte 0 to the table with the description "see table 24".

N.B. This change is believed to be critical to giving all readers the same interpretation of SES status field contents.

Action:

See SY.185. Accepted.

Comment SY.187

Comment

#187 (E) pg: 34, clause: 7.2.2, para: 1st after table 28
Change "... bit is set to one..." to "... bit is set...". The definition of set (see 3.3.8) makes "set to one" redundant.

Action:

Accepted.

Comment SY.188

Comment

#188 (T) pg: 34, clause: 7.2.2, para: 5th after table 28
Change "... the fault indication may be cleared..." to "... the fault indication should be cleared..."

Action:

The indication actually "shall" be cleared under the specified conditions. Modified.

Comment SY.189

Comment

#189 (T) pg: 34, clause: 7.2.2, para: 7th after table 28; pg: 35, clause: 7.2.2, para: 1st on page 35
pg: 37, clause: 7.2.3, para: 9th on page 37; pg: 37, clause: 7.2.3, para: 10th on page 37

Change "... the port bypass will be disabled and the device will be included..." to "... the port bypass shall be disabled and the device shall be included...".

Action:

Accepted.

Comment SY.190

Comment

#190 (E) pg: 35, clause: 7.2.2, para: 2nd after table 29
Change "... overall status..." to "... OVERALL STATUS...".

Action:

Accepted.

Comment SY.191

Comment

#191 (T) pg: 35, clause: 7.2.2, para: 3rd after table 29; pg: 38, clause: 7.2.3, para: 9th after table 31
Replace the last sentence with: "If the DO NOT REMOVE bit is set, it indicates that mechanical interlocks or visual signals are present and activated to indicate that a device should not be removed. If the DO NOT REMOVE bit is cleared, it indicates that mechanical interlocks or visual signals are not present or not activated, indicating that a device may be removed."

Action:

Accepted.

Comment SY.192

Comment

#192 (E) pg: 35, clause: 7.2.2, para: 4th after table 29
Change "... RQST INSERT bit..." to "... RQST INSERT control bit...".

Action:

Accepted.

Comment SY.193

Comment

#193 (E) pg: 35, clause: 7.2.2, para: 6th after table 29; pg: 39, clause: 7.2.3, para: 1st on page 39
Change "... control bit is cleared or if the bit is not implemented." to "... control bit is cleared or not implemented.".

Action:

Accepted.

Comment SY.194

Comment

#194 (E) pg: 35, clause: 7.2.2, para: 7th after table 29
Change "... through this device." to "... through the device described by this ELEMENT STATUS field."

Action:

Accepted.

Comment SY.195

Comment

#195 (E) pg: 35, clause: 7.2.2, para: 9th after table 29
Change "... RQST FAULT bit..." to "... RQST FAULT control bit...". There are three occurrences of the text needing this change in the paragraph.

Action:

Accepted.

Comment SY.196

Comment

#196 (E) pg: 36, clause: 7.2.2, para: 1st on page 36; pg: 36, clause: 7.2.2, para: 2nd on page 36
pg: 39, clause: 7.2.3, para: 2nd on page 39; pg: 39, clause: 7.2.3, para: 3rd on page 39

Change "... by request of the application client or by request of the device or enclosure." to "... by request of the application client, the device, or the enclosure."

Action:

Accepted.

Comment SY.197

Comment

#197 (E) pg: 36, clause: 7.2.3, para: 1
Change "... use in an array." to "... use in a storage array.".

Action:

Accepted.

Comment SY.198

Comment

#198 (E) pg: 36, clause: 7.2.3, para: 1st after table 30; pg: 36, clause: 7.2.3, para: 2nd after table 30
pg: 36, clause: 7.2.3, para: 3rd after table 30; pg: 37, clause: 7.2.3, para: 1st on page 37
pg: 37, clause: 7.2.3, para: 2nd on page 37; pg: 37, clause: 7.2.3, para: 3rd on page 37
pg: 37, clause: 7.2.3, para: 4th on page 37; pg: 37, clause: 7.2.3, para: 5th on page 37
pg: 37, clause: 7.2.3, para: 6th on page 37; pg: 38, clause: 7.2.3, para: 1st after table 31
pg: 38, clause: 7.2.3, para: 2nd after table 31; pg: 38, clause: 7.2.3, para: 3rd after table 31
pg: 38, clause: 7.2.3, para: 4th after table 31; pg: 38, clause: 7.2.3, para: 5th after table 31
pg: 38, clause: 7.2.3, para: 6th after table 31; pg: 38, clause: 7.2.3, para: 7th after table 31
pg: 38, clause: 7.2.3, para: 8th after table 31; pg: 38, clause: 7.2.3, para: 9th after table 31
Change "... bit is set to one..." to "... bit is set...". See comment #187.

Action:

Accepted.

Comment SY.199

Comment

#199 (T) pg: 39, clause: 7.2.4, para: 2nd after table 32; pg: 41, clause: 7.2.5, para: 2nd after table 34
RQST ON and RQST OFF bits should be defined, instead of just RQST ON.

Action:

See SU.1 addresses part of this question. No additional bits need to be defined.

Comment SY.200

Comment

#200 (E) pg: 40, clause: 7.2.4, para: 1st after table 33; pg: 40, clause: 7.2.4, para: 2nd after table 33
pg: 40, clause: 7.2.4, para: 3rd after table 33; pg: 40, clause: 7.2.4, para: 4th after table 33
pg: 40, clause: 7.2.4, para: 6th after table 33
Change "... RQST FAIL bit..." to "... RQST FAIL control bit...".

Action:

Accepted.

Comment SY.201

Comment

#201 (E) pg: 40, clause: 7.2.4, para: 5th after table 33

Change "... RQST ON bit..." to "... RQST ON control bit...". There are two occurrences of the text needing changes in this paragraph.

Action:

Accepted.

Comment SY.202

Comment

#202 (E) pg: 40, clause: 7.2.4, para: 8th after table 33

Regarding the text that starts with, "1=Indicates temperature...". Either remove this text or restructure it to typical SCSI standards wording.

Action:

Accepted. See SU.25.

Comment SY.203

Comment

#203 (E) pg: 42, clause: 7.2.5, para: 1st on page 42

Change "... RQST FAIL bit..." to "... RQST FAIL control bit...".

Action:

Accepted.

Comment SY.204

Comment

#204 (E) pg: 42, clause: 7.2.5, para: 2nd on page 42

Change "... RQST ON bit..." to "... RQST ON control bit...". There are two occurrences of the text needing changes in this paragraph.

Action:

Accepted.

Comment SY.205

Comment

#205 (E) pg: 42, clause: 7.2.5, para: table 37

Make the whole title bold (like the other table titles).

Action:

Accepted.

Comment SY.206

Comment

#206 (E) pg: 43, clause: 7.2.6, para: 1st after table 39

Change "... Celsius, incremented by 20." to "... Celsius, offset by +20 degrees."

Action:

Accepted.

Comment SY.207

Comment

#207 (T) pg: 43, clause: 7.2.6, para: 1st after table 39

Regarding: "The range of the value expresses a temperature between -20 and +245 degrees Celsius."

Shouldn't the range be -19 to +245 degrees Celsius?

Clause 6.1.7 expressly reserves a zero value to mean no threshold in use.

Action:

Accepted.

Comment SY.208

Comment

#208 (E) pg: 43, clause: 7.2.6, para: 2nd after table 39

Change "... temperature falls below the safe operating limit or the HIGH CRITICAL THRESHOLD." to "... temperature falls to a safe operating value or below the HIGH CRITICAL THRESHOLD."

Action:

Accepted.

Comment SY.209

Comment

#209 (E) pg: 43, clause: 7.2.6, para: 4th after table 39

Change "... temperature rises above the safe operating limit or the LOW CRITICAL THRESHOLD." to "... temperature rises to a safe operating value or above the LOW CRITICAL THRESHOLD."

Action:

Accepted.

Comment SY.210

Comment

#210 (E) pg: 44, clause: 7.2.8, para: 1st after table 42

Change "... will be generated." to "... shall be generated."

Action:

Accepted.

Comment SY.211

Comment

#211 (E) pg: 44, clause: 7.2.8, para: 3rd and 4th after table 42

Bring the descriptive text on to the same line as "TONE URGENCY CONTROL", so that the field description has the same appearance as all other field descriptions in SES.

Action:

Accepted.

Comment SY.212

Comment

#212 (E) pg: 44, clause: 7.2.8, para: 4th after table 42

Change "... the most urgent of the selected tones is activated." to "... the tone that signals the most urgent of the selected conditions is activated." Alternatively, a definition for "selected tone" can be added to the glossary.

Action:

Accepted.

Comment SY.213

Comment

#213 (E) pg: 44, clause: 7.2.8, para: 5th after table 42

Change "... enclosure dependent." to "... vendor specific."

Action:

Accepted,

Comment SY.214

Comment

#214 (E) pg: 44, clause: 7.2.8, para: 5th after table 42

Change "... by the enclosure." to "... by the enclosure processor."

Action:

Accepted.

Comment SY.215

Comment

#215 (E) pg: 44, clause: 7.2.8, para: 6th after table 42

Change "... error..." to "... error condition...". There are two instances where this change is needed in the paragraph.

Action:

Accepted.

Comment SY.216

Comment

#216 (E) pg: 45, clause: 7.2.8, para: 1st after table 43

Change "... the SET MUTE bit." to "... the SET MUTE control bit."

Action:

Accepted.

Comment SY.217

Comment

#217 (E) pg: 45, clause: 7.2.8, para: 4th and 5th after table 43

Bring the descriptive text on to the same line as "TONE URGENCY INDICATOR", so that the field description has the same appearance as all other field descriptions in SES.

Action:

Accepted.

Comment SY.218

Comment

#218 (E) pg: 45, clause: 7.2.8, para: 5th after table 43

Change "... the most urgent of the selected tones is active." to "... the tone that signals the most urgent of the selected conditions is active." Alternatively, a definition for "selected tone" can be added to the glossary.

Action:

Accepted.

Comment SY.219

Comment

#219 (E) pg: 45, clause: 7.2.8, para: 6th after table 43

Change "... the audible alarm is quiet." to "... the audible alarm is silent."

Action:

Accepted. See SU.27.

Comment SY.220

Comment

#220 (T) pg: 45, clause: 7.2.8, para: 7th after table 43

Regarding: "The INFO bit is set to indicate that the audible alarm is emitting a tone suitable to warn of an information condition." This statement is not true if the NON-CRIT bit also is set.

Action:

Accepted

Comment SY.221

Comment

#221 (T) pg: 45, clause: 7.2.8, para: 8th after table 43

Regarding: "The NON-CRIT bit is set to indicate that the audible alarm is emitting a tone suitable to warn of a noncritical condition." This statement is not true if the CRIT bit also is set. Also, "noncritical" probably should be "non-critical".

Action:

Accepted.

Comment SY.222

Comment

#222 (T) pg: 45, clause: 7.2.8, para: 7th after table 43

Regarding: "The CRIT bit is set to indicate that the audible alarm is emitting a tone suitable to warn of a critical condition." This statement is not true if the UN-RECOV bit also is set.

Action:

Accepted.

Comment SY.223

Comment

#223 (E) pg: 46, clause: 7.2.9, para: 1st after table 44

Change "... and interprets the control pages." to "... and interprets all control pages.".

Action:

Accepted.

Comment SY.224

Comment

#224 (E) pg: 46, clause: 7.2.9, para: 1st after table 45

Replace the first sentence with: "The REPORT bit is set to indicate the enclosure services controller electronics element described by this STATUS INFORMATION is the enclosure services processor for the primary sub-enclosure."

Action:

The intent of this bit is to indicate which path is related to which target port. The proposed replacement first sentence is modified to read:

The report bit is set to indicate the enclosure services controller electronics element described by this ELEMENT STATUS field contains the enclosure services process that transmitted the status page to the application client.

Comment SY.225

Comment

#225 (E) pg: 46, clause: 7.2.9, para: 1st after table 45

Replace the last sentence with: "The REPORT bit is cleared in all other cases."

Action:

Accepted.

Comment SY.226

Comment

#226 (E) pg: 47, clause: 7.2.10, para: 1st after table 47

Change "... presentation..." to "... transmission...". There are two instances where this change is needed in the paragraph.

Action:

Accepted.

Comment SY.227

Comment

#227 (E) pg: 47, clause: 7.2.11, para: 1st after table 47

Change "... changes in the operating mode for the system." to "... changes in the operating mode for elements in the enclosure.". Alternatively, a definition for "system" may be added to the glossary. However, all uses of "system" in SES must be checked for consistency with any definition that is added to the glossary.

Action:

Accepted.

Comment SY.228

Comment

#228 (E) pg: 48, clause: 7.2.12, para: 1st after table 50

Change "The battery status value..." to "The BATTERY STATUS field...".

Action:

Accepted.

Comment SY.229

Comment

#229 (T) pg: 48, clause: 7.2.12, para: 1st after table 50

Regarding: "The BATTERY STATUS field may be compared against the threshold fields as defined in 6.1.7." Which thresholds? Low? High? Warning? Critical?

Action:

Accepted. The thresholds to be considered for batteries are the low critical and low warning thresholds.

Comment SY.230

Comment

#230 (E) pg: 48, clause: 7.2.12, para: 4th after table 51

Change "... the AC line voltage returns to its specified value." to "... the AC line voltage quality returns to its specified value."

Action:

Accepted.

Comment SY.231

Comment

#231 (E) pg: 49, clause: 7.2.12, para: 1st on page 49

Change "... low warning threshold field..." to "... LOW WARNING THRESHOLD field...".

Action:

Accepted.

Comment SY.232

Comment

#232 (T) pg: 49, clause: 7.2.12, para: 1st on page 49

How is the LOW CRITICAL THRESHOLD field used with respect to uninterruptible power supplies, if at all?

Action:

The text will clarify that the low critical threshold will cause a summary critical bit to be set in byte 1 of the enclosure status or array status page. Similarly, the low warning threshold will cause a summary non-critical bit to be set in the same byte. The text will be placed in the battery status paragraphs.

Comment SY.233

Comment

#233 (E) pg: 49, clause: 7.2.12, para: 1st on page 49

Change "... for at least the required time." to "... for at least the threshold time."

Action:

Accepted. The text will be changed to "... for at least the LOW WARNING THRESHOLD time."

Comment SY.234

Comment

#234 (E) pg: 49, clause: 7.2.12, para: 4th on page 49

Change "... (see clause 7.1.1 and 7.1.2 The BPF..." to "... (see 7.1.1 and 7.1.2). The BPF...".

Action:

Accepted.

Comment SY.235

Comment

#235 (T) pg: 51, clause: 7.2.16, para: 1st after table 59

Regarding "A value of zero indicates...". What about other, non-zero, values. Are they reserved? Are they vendor specific? Are some non-zero values reserved and some vendor specific?

Action:

See E.12

Comment SY.236

Comment

#236 (T) pg: 51, clause: 7.2.16, para: 1st after table 59

Regarding "... using ASCII character encoding...". SCSI usually is more restrictive regarding ASCII character encoding. For example, SPC restricts usage to ASCII codes 20h through 7Eh.

Action:

See E.12

Comment SY.237

Comment

#237 (T) pg: 52, clause: 7.2.17, para: table 61

Why is there no REPORT bit defined?

Action:

There is no REPORT bit defined because this is not used as a path for SES communication.

Comment SY.238

Comment

#238 (T) pg: 52, clause: 7.2.18, para: 1st after table 63; pg: 52, clause: 7.2.18, para: 2nd after table 63 pg: 53, clause: 7.2.19, para: 1st after table 65

Regarding "... threshold value has been exceeded." Which threshold value has been exceeded, warning or critical?

Action:

Accepted. See SU.3.

Comment SY.239

Comment

#239 (E) pg: 52, clause: 7.2.18, para: 3rd after table 63

Add text to the end of the paragraph describing the range of values that the VOLTAGE VALUE field (as defined) can represent.

Action:

Accepted. See SU.4

Comment SY.240

Comment

#240 (E) pg: 52, clause: 7.2.18, para: 1st after table 63

Change "...in units of 0.5%." to "...in units of 0.5% from a vendor specific nominal voltage or nominal voltage range."

Action:

    Accepted.

Comment SY.241

Comment

    #241 (E) pg: 53, clause: 7.2.19, para: 2nd after table 65

    Add text to the end of the paragraph describing the range of values that the CURRENT VALUE field (as defined) can represent.

Action:

    Accepted. See SU.6

Comment SY.242

Comment

    #242 (E) pg: 53, clause: 7.2.19, para: 3rd after table 65

    Change "...in units of 0.5%." to "...in units of 0.5% from a vendor specific maximum normal operating current." Remove the sentence that begins: "The high threshold fields are specified...".

Action:

    Accepted.

Comment SY.243

Comment

    #243 (T) pg: 53, clause: 7.2.19, para: 3rd after table 65

    Why is a vendor specific maximum normal operating current being used? Why not use a vendor specific normal operation current? Such a change would allow the application client to have some say in defining the maximum normal operating current.

Action:

    This comment does not consider the problems associated with normal operating currents which are variable as a function of power supply configuration, fan configuration, and load configuration. The maximum normal operating current was considered the best compromise value for thresholds associated with current sensors. The comment is not accepted.

Comment SY.244

Comment

    #244 (T) pg: 57-68, Annex A - general

    Many of the comments that follow could be ignored, and the contents of Annex A would be much easier to understand if the terminology were changed so that "primary sub-enclosure" would be known as the "primary enclosure". However, such a change would require a careful reading and analysis of Annex A, since a global replace might produce undesirable results.

Action:

    After careful review, the choice is to use the words "primary sub-enclosure". The primary sub-enclosure is only differentiated from other sub-enclosures by two things:

    a) the primary sub-enclosure provides the access path to the enclosure services process.

    b) the enclosure services process of the primary sub-enclosure collects the sub-enclosure information from other sub-enclosures. The proposal is not accepted.

Comment SY.245

Comment

#245 (E) pg: 57, clause: A.1, para: 1

Change "The hierarchical mechanism allows..." to "The SCC hierarchical mechanism allows...".

Action:

Accepted.

Comment SY.246

Comment

#246 (T) pg: 57, clause: A.1, para: 2

Regarding: "... may instead be accessed through the enclosure services logical unit...". Why is access to SES sub-enclosures limited to the enclosure device type? Is there any reason why enclosure services embedded in a disk device type cannot access SES sub-enclosures?

Action:

Accepted. The text should actually indicate that it is the enclosure services process that must be accessible.

Comment SY.247

Comment

#247 (E) pg: 57, clause: A.1, para: 2

Change "... a single set of enclosure services information." to "... a single group of enclosure services diagnostic pages."

Action:

Accepted.

Comment SY.248

Comment

#248 (E) pg: 58, clause: A.2, para: 1

Replace: "The primary sub-enclosure is the enclosure that is accessed directly by the enclosure services command set." with "The primary sub-enclosure is the enclosure that contains the enclosure services processor responsible for transmitting the enclosure configuration page to the application client."

Action:

Accepted.

Comment SY.249

Comment

#249 (E) pg: 58, clause: A.2, para: 1

Replace: "Sub-enclosure are those enclosures, if any, that are not addressed directly, but are accessed through or by the primary sub-enclosure." with "Sub-enclosures are those zero or more enclosures that contribute to the contents of the enclosure configuration page but do not transmit it to the application client."

Action:

Accepted

Comment SY.250

Comment

#250 (E) pg: 58, clause: A.2, para: 1

Replace: "As sub-enclosures are added or deleted from the primary sub-enclosure, the configuration, configuration generation, and the relationship between sub-enclosure identifier and sub-enclosure may change." with "As sub-enclosures are added or removed, the configuration and configuration generation shall change. The addition or removal of a sub-enclosure also may result in a change in the relationship between sub-enclosure identifier and sub-enclosure."

Action:

Accepted.

Comment SY.251

Comment

#251 (E) pg: 58, clause: A.3, para: 2

Change "... all the sub-enclosures managed by..." to "... all the sub-enclosures communicating with...".

Action:

Accepted.

Comment SY.252

Comment

#252 (E) pg: 58, clause: A.3, para: 2

Regarding: "The configuration page is expanded to contain an enclosure descriptor (see 6.1.1) for the primary sub-enclosure...". This statement is not true. The enclosure descriptor for the primary sub-enclosure already is present in the configuration page description found in 6.1.1. No expansion occurs with respect to the enclosure descriptor for the primary sub-enclosure.

A similar concern exists regarding: "... an enclosure descriptor for zero or more sub-enclosures...". If the number of enclosure descriptors added for sub-enclosures is truly zero, then the format of the configuration page is identical to that shown in 6.1.1.

A similar concern exists regarding: "... the TYPE DESCRIPTOR HEADER fields...". There is no expansion of the number of fields in a TYPE DESCRIPTOR HEADER that results from the introduction of sub-enclosures. Previously zero fields within the TYPE DESCRIPTOR HEADER are changed to contain non-zero values, but there is no expansion (addition) of fields.

Action:

Accepted.

Comment SY.253

Comment

#253 (E) pg: 58, clause: A.3, para: 2

Change "... is identified with a sub-enclosure by the sub-enclosure identifier." to "... is matched to a sub-enclosure by the sub-enclosure identifier."

Action:

Accepted.

Comment SY.254

Comment

#254 (E) pg: 59, clause: A.3, para: 1st on page 59

Change "The format of the configuration page may be constructed..." to "The content of the configuration page may be constructed...".

Action:

Accepted.

Comment SY.255

Comment

#255 (E) pg: 59, clause: A.3, para: 1st after table A.1

Regarding: "The portions of the enclosure services configuration page that are added to 6.1.1 to support sub-enclosure identifiers are described in table A.2...". It appears to me that table A.2 describes the whole configuration page, not just the portions that are added to support sub-enclosures.

Action:

Accepted.

Comment SY.256

Comment

#256 (E) pg: 60, clause: A.3, table A.2

Change "Primary sub-sub-enclosure descriptor header" to "Primary sub-enclosure descriptor header".

Action:

Accepted.

Comment SY.257

Comment

#257 (E) pg: 60, clause: A.3, table A.2

Change "Primary enclosure descriptor" to "Primary sub-enclosure descriptor".

Action:

Accepted.

Comment SY.258

Comment

#258 (T) pg: 60 & 61, clause: A.3, table A.2

Add repetition of sub-enclosure descriptor header and sub-enclosure descriptor fields. Add ellipses. Add field representation for sub- enclosure descriptor header (last) and field representation for sub-enclosure descriptor (last).

Action:

Accepted. See SU.30.

Comment SY.259

Comment

#259 (E) pg: 61, clause: A.3, para: 1st after table A.2

Change "... defined by the configuration page in addition to the primary sub-enclosure." to "... defined by the configuration page, not including the primary sub-enclosure." Note, this text is a case where the applying the comment in #244 would simplify the standard.

Action:

Accepted.

Comment SY.260

Comment

#260 (E) pg: 61, clause: A.3, para: 1st after table A.2
Change "That number of sub-enclosure descriptors shall be included immediately following..." to "That number of sub-enclosure headers and descriptors shall be included immediately following...".

Action:

Accepted. Note that table A.1 also needs to be corrected to express this.

Comment SY.261

Comment

#261 (E) pg: 61, clause: A.3, para: 2nd after table A.2
The phrase "... occurs for any command except..." is not at all specific regarding the time at which the requirements described in the remainder of
the sentence shall take effect. An example of the needed time specificity would be "... occurs during the execution of any command except...". See comment #54.

Action:

Accepted.

Comment SY.262

Comment

#262 (E) pg: 61, clause: A.3, para: 3rd after table A.2
Change "... shall be assigned by the primary sub-enclosure..." to "... shall be assigned by the primary sub-enclosure enclosure services process...".

Action:

Accepted.

Comment SY.263

Comment

#263 (E) pg: 61, clause: A.3, para: 3rd after table A.2
Change "... for all pages in a given configuration,..." to "... for all enclosure diagnostic pages associated with a given configuration,...".

Action:

Accepted.

Comment SY.264

Comment

#264 (E) pg: 61, clause: A.3, para: 4th after table A.2
Change "NUMBER OF ELEMENT TYPES SUPPORTED:..." to "NUMBER OF ELEMENT TYPES SUPPORTED (in sub-enclosure):..." to match the text in table A.2.

Action:

Accepted. See SU.30, which deletes the text "(in sub-enclosure)".

Comment SY.265

Comment

#265 (E) pg: 61, clause: A.3, para: 4th after table A.2
Change "... with that sub-enclosure identifier." to "... with this sub-enclosure identifier.". The word "that" suggests "that one over there."

Action:

Accepted.

Comment SY.266

Comment

#266 (E) pg: 61, clause: A.3, para: 4th after table A.2
Change "... for the primary sub-enclosure and for all of the sub-enclosures." to "... for the primary sub-enclosure and all of the sub-enclosures."

Action:

Accepted.

Comment SY.267

Comment

#267 (T) pg: 61, clause: A.3, para: 5th after table A.2
Regarding "... shall use the world wide name format defined by FC-PH." See comment #34.

Action:

Not Accepted. See SE.30.

Comment SY.268

Comment

#268 (T) pg: 61, clause: A.3, para: 5th after table A.2
Regarding: "If the sub-enclosure information is accessed through a device other than an enclosure services device type, there is no mechanism for accessing the information about that device through the sub-enclosure accessing structure." First, A.1 does not allow sub-enclosure information to be accessed though any device type other than enclosure services devices (see comment #246). Second, what does this sentence mean?

Action:

The text will be reworded to correctly reflect the concept that no information about the type of device that may provide access to a sub-enclosure enclosure services process is provided in the enclosure services information. After review, the text may be deleted entirely, since this may be obvious from the overall structure of SES.

Comment SY.269

Comment

#269 (E) pg: 62, clause: A.3, para: 3rd on page 62
Regarding: "The elements of an enclosure are listed in the same order in the configuration page, the type descriptor text of the configuration page, the status page, and the control page." Which status and control pages? Should threshold pages be added to the list?

Action:

Accepted. The wording associated with SY.59-62 will be used to correct this paragraph.

Comment SY.270

Comment

#270 (E) pg: 62, clause: A.3, para: 1st after table A.3; pg: 62, clause: A.3, para: 2nd after table A.3
pg: 62, clause: A.3, para: 4th after table A.3
Replace the field definition text with: "See 6.1.1 for a description of this field."

Action:

Accepted.

Comment SY.271

Comment

#271 (E) pg: 62, clause: A.4, para: 1
Change "... pages are not modified..." to "... page formats are not modified...".

Action:

Accepted.

Comment SY.272

Comment

#272 (E) pg: 62, clause: A.4, para: 1
Change "... in the order required by the configuration page." to "... in the order matching the configuration page." This change avoids an improper use of the standardize word "required".

Action:

Accepted.

Comment SY.273

Comment

#273 (E) pg: 63, clause: A.5, para: 1st after table A.4
Regarding: "That number of sub-enclosure help texts shall be included immediately following the primary sub-enclosure help text." This requirement is not shown in table A.4. Table A.4 makes it appear as if the NUMBER OF SUB-ENCLOSURES field contains the total count of the number of sub-enclosure help text fields present in the parameter data, including the primary sub-enclosure.

Two alternative corrections are offered. Modify table A.4 to show the primary sub-enclosure help text, the first sub-enclosure help text and the last sub-enclosure help text. Or, change the sentence quoted above to read: "That number of sub-enclosure help text fields plus one shall be included immediately following the diagnostic page header field."

Action:

First alternative is accepted. Also apply SY.260.

Comment SY.274

Comment

#274 (T) pg: 63, clause: A.5, para: following 1st after table A.4
The description of the SUB-ENCLOSURE IDENTIFIER field in A.3 is specific to usage in the type descriptor header and cannot be referenced by table A.4. Change such references in A.4 and add the

following description between the first and second paragraphs after table A.4: "SUB-ENCLOSURE IDENTIFIER: The SUB-ENCLOSURE IDENTIFIER field specifies a vendor specific identifier for the help text that follows it. The SUB-ENCLOSURE IDENTIFIER value shall match at least one of the SUB-ENCLOSURE IDENTIFIER values found in the configuration page, or the configuration page shall report a changed configuration and incremented GENERATION CODE (see A.3)."

Action:

Accepted.

Comment SY.275

Comment

#275 (T) pg: 63, clause: A.5, para: 2nd after table A.4
Add the following sentence at the end of the paragraph: "If a sub-enclosure has no help text, the HELP TEXT LENGTH field shall contain zero."

Action:

Accepted.

Comment SY.276

Comment

#276 (E) pg: 63, clause: A.6, para: 1
Change "... the diagnostic page transmitted..." to "... the string out diagnostic page transmitted...".

Action:

Accepted.

Comment SY.277

Comment

#277 (E) pg: 64, clause: A.6, table A.5
Change "clause A.3" to "A.6". This change removes the word clause (as required by ANSI editing conventions) and changes the reference to A.6, which is where the defining text appears.

Action:

Accepted.

Comment SY.278

Comment

#278 (T) pg: 64, clause: A.6, para: 1st after table A.5
Replace the paragraph with: "SUB-ENCLOSURE IDENTIFIER: The SUB-ENCLOSURE IDENTIFIER field specifies a vendor specific identifier for the sub- enclosure to which the application client wants the vendor specific string out information sent. The SUB-ENCLOSURE IDENTIFIER value shall match a SUB-ENCLOSURE IDENTIFIER value found in the configuration page, or enclosure services process shall treat the request as one containing an error in the parameter data. The exact mechanics for handling errors in parameter data depend on how the enclosure services process communicates with the application client (see 4.1)."

Action:

Accepted.

Comment SY.279

Comment

#279 (E) pg: 64, clause: A.7, para: 1

Change "... the information returned by..." to "... the string in diagnostic page returned by...".

Action:

Accepted.

Comment SY.280

Comment

#280 (E) pg: 65, clause: A.7, para: 1st after table A.6

Regarding: "That number of sub-enclosure string in fields shall be included immediately following field for the primary sub-enclosure." This requirement is not shown in table A.6. Table A.6 makes it appear as if the NUMBER OF SUB-ENCLOSURES field contains the total count of the number of sub-enclosure string in fields present in the parameter data, including the primary sub-enclosure.

Two alternative corrections are offered. Modify table A.6 to show the primary sub-enclosure string in field, the first sub-enclosure string in field and the last sub-enclosure string in field. Or, change the sentence quoted above to read: "That number of sub-enclosure string in fields plus one shall be included immediately following the diagnostic page header field."

Action:

Accepted. See SY.260 and SY.273.

Comment SY.281

Comment

#281 (T) pg: 65, clause: A.7, para: following 1st after table A.6

The description of the SUB-ENCLOSURE IDENTIFIER field in A.3 is specific to usage in the type descriptor header and cannot be referenced by table A.6. Change such references in A.6 and add the following description between the first and second paragraphs after table A.6: "SUB-ENCLOSURE IDENTIFIER: The SUB-ENCLOSURE IDENTIFIER field specifies a vendor specific identifier for the string in field that follows it. The SUB-ENCLOSURE IDENTIFIER value shall match at least one of the SUB-ENCLOSURE IDENTIFIER values found in the configuration page, or the configuration page shall report a changed configuration and incremented GENERATION CODE (see A.3)."

Action:

Accepted.

Comment SY.282

Comment

#282 (T) pg: 65, clause: A.7, para: 2nd after table A.6

Add the following sentence at the end of the paragraph: "If a sub-enclosure has no string in field, the VENDOR SPECIFIC LENGTH field shall contain zero."

Action:

Accepted.

Comment SY.283

Comment

#283 (E) pg: 65, clause: A.8, para: 1

Change "... the diagnostic page transmitted..." to "... the threshold out diagnostic page transmitted...".

Action:

Accepted.

Comment SY.284

Comment

#284 (T) pg: 66, clause: A.8, para: following table A.7

The description of the SUB-ENCLOSURE IDENTIFIER field in A.3 is specific to usage in the type descriptor header and cannot be referenced by table A.7. Change such references in A.7 and add the following description immediately following table A.7: "SUB-ENCLOSURE IDENTIFIER: The SUB-ENCLOSURE IDENTIFIER field specifies a vendor specific identifier for the sub-enclosure to which the application client wants the threshold out page sent. The SUB-ENCLOSURE IDENTIFIER value shall match a SUB-ENCLOSURE IDENTIFIER value found in the configuration page, or enclosure services process shall treat the request as one containing an error in the parameter data. The exact mechanics for handling errors in parameter data depend on how the enclosure services process communicates with the application client (see 4.1)."

Action:

Accepted.

Comment SY.285

Comment

#285 (E) pg: 66, clause: A.9, para: 1

Change "... the information returned by..." to "... the threshold in diagnostic page returned by...".

Action:

Accepted.

Comment SY.286

Comment

#286 (E) pg: 66, clause: A.9, para: 1

Change "... from the primary sub -enclosure." to "... from the primary sub-enclosure."

Action:

Accepted.

Comment SY.287

Comment

#287 (E) pg: 67, clause: A.9, para: 1st after table A.8

Change "That number of sub-enclosure string in fields shall be included immediately following the primary sub-enclosure threshold in field." to "That number of sub-enclosure threshold in fields shall be included immediately following the primary sub-enclosure threshold in field."

Action:

Accepted.

Comment SY.288

Comment

#288 (E) pg: 67, clause: A.9, para: 1st after table A.8

Regarding: "That number of sub-enclosure threshold in fields shall be included immediately following the primary sub-enclosure threshold in field." This requirement is not shown in table A.8. Table A.8 makes it appear as if the NUMBER OF SUB-ENCLOSURES field contains the total count of the number of sub-enclosure threshold in fields present in the parameter data, including the primary sub-enclosure.

Two alternative corrections are offered. Modify table A.8 to show the primary sub-enclosure threshold in field, the first sub-enclosure threshold in field and the last sub-enclosure threshold in field. Or, change the sentence quoted above to read: "That number of sub-enclosure threshold in fields plus one shall be included immediately following the diagnostic page header field."

Action:

Accepted. See SY.260 and SY.273.

Comment SY.289

Comment

#289 (T) pg: 67, clause: A.9, para: following 1st after table A.8

The description of the SUB-ENCLOSURE IDENTIFIER field in A.3 is specific to usage in the type descriptor header and cannot be referenced by table A.8. Change such references in A.8 and add the following description between the first and second paragraphs after table A.8: "SUB-ENCLOSURE IDENTIFIER: The SUB-ENCLOSURE IDENTIFIER field specifies a vendor specific identifier for the threshold in field that follows it. The SUB-ENCLOSURE IDENTIFIER value shall match at least one of the SUB-ENCLOSURE IDENTIFIER values found in the configuration page, or the configuration page shall report a changed configuration and incremented GENERATION CODE (see A.3)."

Action:

Accepted.

Comment SY.290

Comment

#290 (T) pg: 67, clause: A.9, para: 2nd after table A.8

Add the following sentence at the end of the paragraph: "If a sub-enclosure has no threshold in field, the THRESHOLD LIST LENGTH field shall contain zero."

Action:

Accepted.

Comment SY.291

Comment

#291 (E) pg: 67, clause: A.10, para: 1

Change "... the information returned by..." to "... the element descriptor diagnostic page returned by...".

Action:

Accepted.

Comment SY.292

Comment

#292 (E) pg: 68, clause: A.10, para: 1st after table A.9

Change "That number of sub-enclosure descriptor lists shall be included immediately following the primary sub-enclosure descriptor list." to "That number of sub-enclosure element descriptor lists shall be included immediately following the primary sub-enclosure element descriptor list."

Action:

A.10 is written incorrectly. The entire clause must be rewritten to reflect that the element descriptors must be in the order specified in the configuration page, which is not required to be the same as the element order in the individual enclosure services information. The new clause will be modeled after the enclosure status page in section A.4. The comment is changed.

Comment SY.293

Comment

#293 (E) pg: 68, clause: A.10, para: 1st after table A.9

Regarding: "That number of sub-enclosure element descriptor lists shall be included immediately following the primary sub-enclosure element descriptor list." This requirement is not shown in table A.9. Table A.9 makes it appear as if the NUMBER OF SUB-ENCLOSURES field contains the total count of the number of sub-enclosure element descriptor lists present in the parameter data, including the primary sub-enclosure.

Two alternative corrections are offered. Modify table A.9 to show the primary sub-enclosure element descriptor list, the first sub-enclosure element descriptor list and the last sub-enclosure element descriptor list. Or, change the sentence quoted above to read: "That number of sub-enclosure element descriptor lists plus one shall be included immediately following the diagnostic page header field."

Action:

Changed. See SY.292.

Comment SY.294

Comment

#294 (T) pg: 68, clause: A.10, para: following 1st after table A.9

The description of the SUB-ENCLOSURE IDENTIFIER field in A.3 is specific to usage in the type descriptor header and cannot be referenced by table A.9. Change such references in A.9 and add the following description between the first and second paragraphs after table A.9: "SUB-ENCLOSURE IDENTIFIER: The SUB-ENCLOSURE IDENTIFIER field specifies a vendor specific identifier for the element descriptor list that follows it. The SUB-ENCLOSURE IDENTIFIER value shall match at least one of the SUB-ENCLOSURE IDENTIFIER values found in the configuration page, or the configuration page shall report a changed configuration and incremented GENERATION CODE (see A.3)."

Action:

Changed. See SY.292

Comment SY.295

Comment

#295 (T) pg: 68, clause: A.10, para: 2nd after table A.9

Add the following sentence at the end of the paragraph: "If a sub-enclosure has no element descriptor list, the DESCRIPTOR LIST LENGTH field shall contain zero."

Action:

Changed. See SY.292

Comment SY.296

Comment

#296 (E) pg: 69, clause: A.11, para: 1
Change "Enclosures reporting the short status page shall not be defined using the sub-enclosure identifier." to "Enclosures reporting the short status page shall not be primary sub-enclosures.".

Action:

Accepted.

Comment SY.297

Comment

#297 (E) pg: 69, clause: A.11, para: 1
Change "If an enclosure providing the short status page is used as a sub-enclosure on a primary sub-enclosure, the enclosure shall be define as a simple sub-enclosure element (see clause 7.2.22)." to "If an enclosure providing the short status page is used as a sub-enclosure by a primary sub-enclosure, the enclosure shall be represented as a simple sub-enclosure element (see 7.2.22).".

Action:

Accepted. See SE.45.

Comment SY.298

Comment

#298 (E) pg: 71, clause: B.1, para: 2; pg: 71, clause: B.1, para: 8
Change "... has been detected by the enclosure." to "... has been detected by the enclosure services process.".

Action:

Accepted.

Comment SY.299

Comment

#299 (E) pg: 71, clause: B.1, para: 2
Change "... REQUEST DIAGNOSTIC RESULTS..." to "... RECEIVE DIAGNOSTIC RESULTS...".

Action:

Accepted.

Comment SY.300

Comment

#300 (E) pg: 71, clause: B.1, para: 2; pg: 71, clause: B.1, para: 8
Change "... enclosure services in page." to "... enclosure status page.".

Action:

Accepted.

Comment SY.301

Comment

#301 (T) pg: 71, clause: B.1, para: 2; pg: 71, clause: B.1, para: 8

Change "This condition shall only be presented by an enclosure services type device for a command other than SEND DIAGNOSTIC or RECEIVE DIAGNOSTIC RESULTS." to "This additional sense code shall only be returned by an enclosure services type device in the sense data for a CHECK CONDITION status returned for a command other than RECEIVE DIAGNOSTIC RESULTS." Note: this comment would be editorial if SEND DIAGNOSTIC has been kept in the list of affected commands. However, I feel that the additional sense codes described using this sentence should be returned as a result for SEND DIAGNOSTIC commands because there is no guarantee that an application client will follow a SEND DIAGNOSTIC with a command that senses enclosure status.

Action:

Accepted.

Comment SY.302

Comment

#302 (E) pg: 71, clause: B.1, para: 3; pg: 71, clause: B.1, para: 4

pg: 71, clause: B.1, para: 5; pg: 71, clause: B.1, para: 6

pg: 71, clause: B.1, para: 7

Change "This condition may be presented by any device that provides enclosure services." to "This additional sense code may be returned by any device that provides enclosure services."

Action:

Accepted.

Comment SY.303

Comment

#303 (E) pg: 71, clause: B.1, para: 5; pg: 71, clause: B.1, para: 6

Change "... enclosure services function..." to "... enclosure services process...".

Action:

Accepted.

Comment SY.304

Comment

#304 (E) pg: 71, clause: B.1, para: 6

Change "... depending on the detected cause of the error." to "... depending on the cause of the error."

Action:

Accepted.

Comment SY.305

Comment

#305 (E) pg: 71, clause: B.1, para: 7

Change "this is provided using the Sense Key..." to "This is provided using the Sense Key...".

Action:

Accepted.

3.6   Additional comments from editor

Comment ED.1

Comment

This comment was offered as a future public review comment which should be corrected now. At present, the text places requirements on non-enclosure services devices to perform some checking on the diagnostic mode page codes and the direction of transfer for the enclosure. To facilitate future expansion and reduce the checking requirements on the non-enclosure services device servers, the requirement to check direction will be removed. The INVOP bit will be used to indicate that invalid operations were attempted to the enclosure services process. An additional set of diagnostic mode page codes will be reserved for future SES functionality. Table 2 will reserve the page codes up to 0Fh for future SES use.

Action:

Accepted.