

To: T10 Technical Committee
From: Rob Elliott, HP (elliott@hp.com)
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Subject: 03-316r0 SPC-3 Mode Page Policy mode page

Revision history

Revision 0 (6 September 2003) First revision

Related documents

spc3r14 - SCSI Primary Commands revision 14

Overview

There is no way in SCSI to tell the policy being used for a mode page. The policies are described in the MODE SELECT (6) command description in section 6.7.

Table 1 — Mode page policies (Table 90 in spc3r14)

| Mode page policy | Logical unit maintains |
|--------------------|--|
| Shared | One copy of the mode page |
| Per initiator port | Separate copies of the mode page for each initiator port |
| Per I_T nexus | Separate copies of the mode page for each I_T nexus |

Assuming the worst case, each mode page could have a different policy.

A new mode page is proposed which reports, for each mode page, which policy is in effect.

Alternative: if it could be assumed that all mode pages had the same policy, then a single field could be added to the standard INQUIRY data to report this.

Suggested changes**6.7 MODE SELECT (6) command**

...

Logical units shall maintain current and saved values of each mode page based on any of the policies listed in table 90. The policy used for each mode page may be reported in the Mode Page Policy mode page (see 7.4.nn).

...

7.4.nn Mode Page Policy mode page [new section]

[Editor's note: allocate a new mode page code for this page. 12h is suggested.]

The Mode Page Policy mode page (see table 2) indicates which mode page policy (see 6.7) is in effect for each mode page supported by the logical unit.

Table 2 — Mode Page Policy mode page

| Bit Byte | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
|-------------|---------------------------------------|---|---|---|---|---|---|---|
| 0 | PS SPF (0b) PAGE CODE (12h) | | | | | | | |
| 1 | PAGE LENGTH (n - 1) | | | | | | | |
| 2 | Mode page policy descriptors | | | | | | | |
| n | | | | | | | | |

The device server shall return one mode page policy descriptor for every mode page and subpage supported by the logical unit.

[Editor's note: should there be any sorting suggestions/rules? MODE SELECT says "mode pages should be returned in ascending page code order except for mode page 00h." Perhaps this page should report them in the same order as MODE SELECT reading page code 3Fh and subpage FFh?]

Table 3 describes the mode page policy descriptor.

Table 3 — Mode page policy descriptor

| Bit Byte | 7 | 6 | 5 | 4 | 3 | 2 | 1 | 0 |
|-------------|---------------------|---|------------------|---|---|---|---|---|
| 0 | MODE PAGE POLICY | | POLICY PAGE CODE | | | | | |
| 1 | POLICY SUBPAGE CODE | | | | | | | |

The MODE PAGE POLICY field defines the policy for the mode page indicated by the corresponding POLICY PAGE CODE field and is defined in table 4. See 6.7 and table 90 for descriptions of the mode page policies.

Table 4 — Mode page policies

| Value | Description |
|-------|--------------------|
| 00b | Shared |
| 01b | Per initiator port |
| 10b | Per I_T nexus |
| 11b | Reserved |