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To: John Lohmeyer, Chairman, X3T9.2

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Subject: Mode Select error detection

Paul Hanmann pointed out in 91-019 that several targets are
inconsistant in the way they check for errors in non-changable fields
on a mode select. The March working group meeting agreed on a
clarification of the target's error detection. I have added a second
option that goes even further. The second option specifies when the
target may change some parameters and when it may not.

Section 7.2.8 MODE SELECT(6) Command
          and
Section 7.2.9 MODE SELECT(10) Command

Change first paragraph, last sentence from

Initiators should issue MODE SENSE prior to MODE SELECT ...

to

Initiators should issue MODE SENSE prior to each MODE SELECT ...

OPTION 1

Bottom of page 7-31 (rev 10c), between (1) and (2) add

NOTE: The target shall check all non-changable parameters in all pages
sent by the initator before any changes take effect.

OPTION 2

Bottom of page 7-31 (rev 10c), remove last sentenance of (1).

Top of page 7-32 (rev 10c), add new paragraph to end of 7.2.8.

The target shall check for certain of the above errors in the MODE
SELECT command before any parameters are updated. The target shall
terminate the MODE SELECT with CHECK CONDITION status, set the sense
key to ILLEGAL REQUEST and set the additional sense code as specified
above. The target shall not update any parameters:
   (1) Before all fields in the command descriptor block have been
checked.
   (2) Before all fields in the Mode Parameter Header have been
checked.
   (3) Before all fields in each Mode Parameter Block Descriptor have
been checked.
   (4) Before all fields in each mode page header have been
checked.
   (5) Before mode page length in each page has been checked.
   (6) Before all non-changable fields in each page have been checked.

The target may update zero or more pages for any other MODE SELECT
error.