

Date: October 30, 02
To: T10 Technical Committee
From: Jim Coomes (jim.comes@seagate.com)
Subject: SAS Processing unknown frame types

Problem:

SAS rev 2b states in

9.2.5.2 Target port error handling

If a target port receives a frame with an unknown FRAME TYPE and a valid TAG, it shall terminate the command with a CHECK CONDITION status with a sense key of ABORTED COMMAND and an additional sense code of INVALID INFORMATION UNIT.

If a target port receives a frame with an unknown FRAME TYPE and an unknown TAG, it shall discard the frame.

This requires the target to search the command queue when an unknown (and unsupported) frame type is received. As there is no method to indicate a TAG is not valid, any match of TAG value for the I_T_L in a newly defined or vendor specific FRAME TYPE would require a target to abort the command associated with the TAG and send a CHECK CONDITION status.

Proposed solution:

Targets should not be required to compare the TAG of an unknown FRAME TYPE with the queue. Reception of frames with an unknown FRAME TYPE should not affect commands in the queue. The following options are proposed:

- a) if a target port receives a frame with an unknown FRAME TYPE, it shall discard the frame; or
- b) if a target port receives a frame with an unknown FRAME TYPE, it shall return a CHECK CONDITION status with a sense key of ABORTED COMMAND and an additional sense code of INVALID INFORMATION UNIT.