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FROM: Peter Johansson
 TO: T10 SBP-2 *ad hoc* Working Group
 DATE: February 14, 1997
 RE: Unsolicited Status Handshake in SBP-2

The proposal below represents the working group's opinion, from the January 20 meeting in San Jose, that permission to store unsolicited status should be initially disabled at the time of a login or create stream request. Initiators that wish to accept unsolicited status may subsequently write to the UNSOLICITED_STATUS_ENABLE register each time a single instance of unsolicited status may be stored. The proposed modifications to the SBP-2 Revision 2 clause are shown by change bars.

6.4.5 UNSOLICITED_STATUS_ENABLE~~STATUS_ACKNOWLEDGE~~ register

The UNSOLICITED_STATUS_ENABLE~~STATUS_ACKNOWLEDGE~~ register provides a location at which the initiator may grant the target permission to store an unsolicited status block~~signal the target that unsolicited status has been received~~. The definition of this write-only register is given by Figure 1 below.

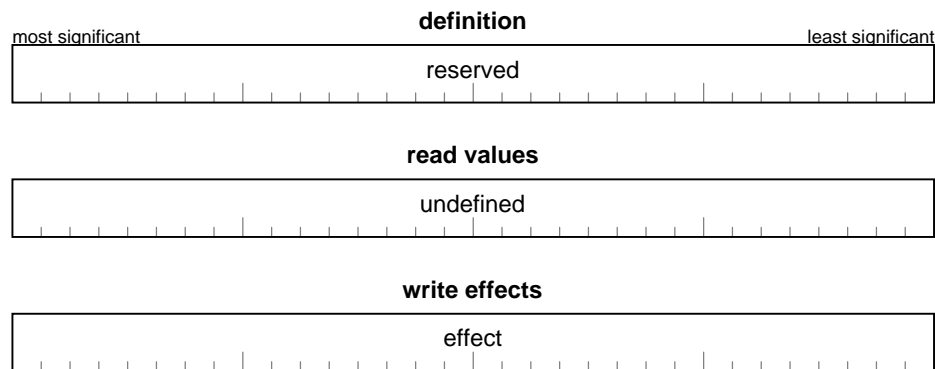


Figure 1 – UNSOLICITED_STATUS_ENABLE~~STATUS_ACKNOWLEDGE~~ format

A quadlet write of any value to this register shall cause the fetch agent's unsolicited status enabled~~status acknowledgment~~ variable to be set to one. A successful login or create stream request~~isochronous login~~ shall zero~~set~~ the corresponding unsolicited status enabled~~status acknowledgment~~ variable ~~to one~~. As described in 9.4, any time a target stores an unsolicited status block it shall zero the unsolicited status enabled variable for that login. Before the target may store a subsequent unsolicited status block it is necessary for the initiator to write to the UNSOLICITED_STATUS_ENABLE register.

9.4 Unsolicited status

In addition to status associated with a particular ORB, described in the preceding section, a fetch agent may store unsolicited status at the address specified by *status_FIFO*. A status block that contains unsolicited status shall be identified by setting the *unsolicited* bit to one.

A fetch agent may store unsolicited status at any time that its *unsolicited status enabled**status acknowledgment* variable is one. Upon *successful* completion of the Serial Bus block write transaction used to store the status block, the fetch agent shall zero its *unsolicited status enabled**status acknowledgment* variable. The initiator may set the fetch agent's *unsolicited status enabled**status acknowledgment* variable to one by writing any data value to the *corresponding UNSOLICITED STATUS_ENABLE**STATUS_ACKNOWLEDGE* register.

The action taken by a target when unsolicited status is generated but cannot be stored because the *unsolicited status enable* variable is zero depends upon the nature of the status. If the status is for a unit attention condition, the target shall retain the information with the intent to store it as soon as the *unsolicited status enable* variable is set to one. The unit attention condition shall persist until the corresponding status block is stored at the initiator's *status_FIFO*. Other status information that does not constitute a unit attention may be discarded by the target. The definition of unit attention conditions is beyond the scope of SBP-2 and is usually the province of the command-set standard for the target.