To: T10 Technical Committee

From: Cris Simpson, Intel Corp. cris.simpson@intel.com

Date: 17 January 2002

Subject: Comments on SRP NOTURG proposal

Revision History

Revision 0: First Revision

Related Documents

SRPr10 T1/01-328r2 (unnumbered) NOTURG.PDF, Ed Gardner, 17 Jan 2002

Normal and solicited message reception.

This feature is described in the RDMA communication service model, yet not used by SRP. Interrupt mitigation is important in high end systems. Therefore this should be supported by SRP information units.

Were this the only way to mitigate interrupts, more consideration of this proposal would be warranted. InfiniBand provides interrupt mitigation through its completion queue model, which gives consumers a high degree of control over event generation. Similar capabilities can be expected in other high-performance, hardware-accelerated transports.

At very high completion rates, no events are needed, as the completion queue would not drain. In this case, there is always a completion to handle, so a solicited event notification would serve no useful purpose.

In cases where the completion rate is low enough that the completion queue does go empty, it's hard to imagine a scenario in which the consumer would *not* want immediate notification. If the completion is to announce that a Read has completed, the consumer will want to know so that it may begin work on the delivered data. If a Write, the consumer knows that data has been committed, and may now move on to other transactions. There appear to be no cases where the consumer would not want to know that an SRP request has completed, and would therefore issue REQUEST COMPLETION NOTIFICATION with the 'next completion' option, instead of the 'next solicited completion' option.

The proposed feature is unnecessary and should be rejected.