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To: T10 Technical Committee
From: Bill Galloway
Subj: Reduce SRP_CMD IU types to one

The current revision of SRP contains three different IU types for commands. Having three different ways to do the same thing increases hardware and software design complexity, triples the amount of command submission testing, and increases the possibility of interoperability problems. No other protocol has found the need to add this additional complexity. Bridging controllers will have the complexity of mapping the single command IU of all other protocols to or from the three command types of SRP.

The stated reason for having three different command IU types is that having an early look at command IU size may save memory in target adapters.

Even if this possible memory saving is worth all of the added complexity; target adapters have all of the necessary information without the separate command IU types. The entire command IU must be received and CRC validated by the transport layer before the SRP layer can use any fields. This means that the "additional CDB length" field is validated and available at the same time that the IU type field is validated and available. The "additional CDB length" field gives more accurate information than the type field for the SRP_CMD_32 and SRP_CMD_LONG IU type. The accurate IU size can also be made available from the transport layer.

Given the added complexity of three command IU types and the alternate methods of achieving the same goal I propose that:

SRP_CMD_16 be eliminated.
SRP_CMD_32 be eliminated.
SRP_CMD_LONG be renamed to SRP_CMD.