Document:	T10/00-390r0	Date:	October 23, 2000
To:	T10 Committee Membership		
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Subject:	Renaming SVP		

With the public release of the Infiniband™ specifications, I find myself questioning whether I have taken the best approach to specifying SVP. Experiences of the past months have demonstrated that there is ongoing confusion about the purpose of SVP. One demonstration of this is that I have been questioned about SVP's purpose at each of the last three T10 plenary meetings. I've been questioned similarly in private conversations.

A related aspect is how one might determine compliance with SVP. The VI Architecture specifies a communication model (message passing plus RDMA) and a specific API (work lists plus doorbells plus other things). SVP only requires the communication model, it does not require the API. Indeed, some of the primary intended uses for SVP (e.g. Infiniband™ storage devices) are unlikely to use the VI Architecture's API. Yet I know of no way to specify or determine compliance with a communication model. An oft-stated concern is that compliance be stated in terms of the messages that appear on the wire, not the programming methods that generate them.

I believe these problems are in part due to the emphasis given to the VI Architecture in the SVP specification. SVP is based on a communication model comprised of messaging plus RDMA. For perspective, the following is a partial list of interconnects consistent with that communication model:

> Digital Equipment Corporation's Systems Communication Architecture (SCA, ca. 1982).

> Compaq's ServerNet (formerly Tandem's TNet, introduced 1993 or earlier).

> RDMA extensions under discussion for TCP/IP.

> VI Architecture.

> Infiniband™.

I know there are others, including various academic proposals. The above are just a few that I am personally aware of. SVP could in principle operate compatibly on any of these using the same message formats. However, only the VI Architecture and Infiniband™ appear commercially interesting at present.

The essence of this proposal is to remove "VI" and VI Architecture specific terminology from the title and body of the specification, possibly excepting incidental mention in the introduction. These will be replaced with the specific communication model on which SVP is based. The specification will start with a description of the communication model, then the rest of the specification body written in terms of that model. An annex will define the mapping of the renamed SVP to the VI Architecture API. Another annex will define the mapping of the renamed SVP to Infiniband™. I anticipate both of these annexes will be normative. Additional similar annexes could be added for other interfaces if justified.

This is, strictly speaking, merely a large editorial change, and one could argue that it falls within the technical editor's editorial prerogative. However it is prominent enough that I feel it warrants discussion comparable to a substantive change. I don't care to risk being tasked to back out such a large change ☺.

For those who care about formal procedures, the applicable sentence of the project proposal reads "The SCSI VI Protocol (SVP) will define a SCSI protocol mapping onto the Virtual Interface Architecture and/or functionally similar cluster protocols". Since the intent of this change is to first define a model for "functionally similar cluster protocols", then specify SVP in terms of that model, it is self-evident that this complies with the project proposal.

Which brings us to the most contentious issue, a new name for SVP. Removing "VI" from the title means removing the "V" from "SVP". I can't think of any good alternative words beginning with "V". In discussing possible names with various people, the best I've heard to date is DAS for Direct Access SCSI (credit to Pankaj Mehra of Compaq's Tandem division). "Direct Access" is sort of an allusion to the use of RDMA and has a nice ring to it. Besides, I look forward to talking about DAS disks ☺. I'm open to other naming suggestions, but please do not waste meeting time inventing them.