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To:T10 Committee MembershipFrom:Edward A. Gardner, Ophidian DesignsSubject:SRP Initiator Identifiers

The February 20-21, 2001 SRP working group agreed that the SRP initiator identifier should be exchanged at login, presumably as part of the SRP_LOGIN_REQ information unit. This proposal refines the details of that approach.

We will add an SRP initiator port identifier field to the SRP_LOGIN_REQ information unit. The structure and contents of that field are discussed below. Note that I will continue to use the term "identifier" for this proposal, although it may more properly be a "name" as defined in George Penokie's "Names, Addresses, Identifiers, Oh my!" (01-084).

During login, an SRP target port shall either associate the connection with the specified SRP initiator port or reject the connection request.

An SRP target port may receive a connection request or login that specifies the same initiator port identifier as one of its existing connections. Plausible behavior when this occurs includes:

- 1. Disconnect any existing connection with the same initiator port identifier and abort all outstanding tasks on that connection (similar actions to a Fibre Channel PRLO).
- 2. Accept the new connection and treat it as independent of any existing connection except for detecting reservation conflicts. Each command would operate solely upon the connection on which it was issued. Control of command ordering for commands using different connections would be outside the scope of SRP (if you care about ordering, only use one connection). Reservation conflicts would be detected using the specified initiator port identifier, implying that multiple connections may share the same reservation context.
- 3. Something more complex, such as Cris Simpson's multichannel proposal (01-085).

I propose that the login request allow either behavior 1 or 2 to be specified. Additional behaviors might be specified when a future multichannel proposal is accepted.

Returning to the structure of an SRP initiator port identifier. I propose that this be an EUI-64 value, mostly for symmetry with SRP target port identifiers. With InfinibandTM an initiator can choose an EUI-64 from one of its channel adapters to serve as an SRP initiator port identifier. I expect one can be readily obtained in non-InfinibandTM configurations as well.

Other alternatives include:

- 1. An IPv6 address (128 bits). These are also readily obtained from any channel adapter.
- 2. An opaque, unstructured field of either 64 or 128 bits. This is equivalent to either an EUI-64 or IPv6 address, omitting the guidance of how values should be assigned.

I don't feel strongly among these alternatives. I do care that we pick one and stick with it.