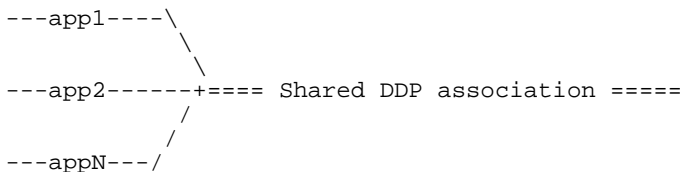


- o SCTP provides a very simple mapping for RDDP
 - One DDP Segment == One SCTP User Message
 - One SCTP User Message == One Chunk
 - All data chunks are unordered and can be placed immediately
 - Mapping supports both building DDP over existing stacks OR optimized hardware solutions
- o SCTP is a natural transport for RDDP.
 - Both the unordered mode and the BE bits in SCTP's headers make the two fit well together.
 - Options to "disable" fragmentation are also useful.
- o Major Design Decisions found in the draft
 - a DDP/RDMA SCTP association is placed completely in this mode. This allows an easier integration of both hardware and software implementations.
 - Use of un-ordered for all DDP messages.
 - > Provides for easy direct placement without getting into ordering issues :>
 - > Requires that a DDP-SSN be used, which also nicely align with MPA.
 - > We briefly explored "re-using" the SSN with re-ordered but after some discussion (on the tsvwg) some rather good reasons were brought up that says we need DDP-SSN.
 - No fragmentation at the SCTP layer. This simplifies the design and IS conformant with SCTP implementations. Note that when this option is enabled SCTP will reject messages that are larger than the P-MTU.
 - DDP-Stream reuse - In the draft we discuss a DDP-Reset message. The concept behind this is to allow a stream to be reused after the ULP is done. Consider,

after the ULP is done, or the stream has had a terminating error:



without a stream reset N would become limited to the max streams over the life of the association (since as each app terminates a new stream would be needed). But by allowing a stream to reset, the number of streams becomes the upper bounds on the number of simultaneous "sharers" of a DDP enabled association.

The "Stream Reset" is a pass-thru Data Chunk that tells the receiving RDDP layer to initialize (re-initialize) a DDP stream. Any prior error state is canceled. It has the same effect as closing and re-opening a TCP stream, but much faster :> You also do not lose your congestion state (RTO/MTU/cwnd/ssthresh et.al).

Issue> We may need to better detail usage of the stream reset.