The Simple Tunneling Mapper

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Background

- The IEEE P1904.3/D1.0 draft defines a Simple Tunneling Mapper:
  - "The simple tunneling mapper captures bits from one end of a constant bit rate link, packetizes the bits into Ethernet packets, sends the packets across the network, and then recreates the bit stream at the far end of the link. While the general expectation is that the tunneled data will likely be CPRI data streams, the data could be any binary constant rate data stream within the range of data rates supported by that equipment.
  - In distinction to the agnostic mapper, **the simple tunneling mapper does not remove any line coding** bits and does not interpret any special characters (such as K-characters). If the source data is 8b/10b-encoded, the 10-bit symbols present on the line will be tunneled by this mapper as 10 bits of data. Similarly, 66-bit symbols will be sent for 64b/66b-encoded data as 66 bits of data.
  - Data that is not evenly divisible into 8-bit octets is not padded; instead, packet payloads are truncated to the last full octet, and the remainder bits are sent at the beginning of the next packet. This means, for example, that data from a 66-bit symbol at the end of a payload may actually be split across two packets with successive packet numbers."

Concerns

- The current formulation of the Simple Tunneling Mapper is about the same as the Structure Agnostic Mapper except for the 8b/10b coding part.

- Usefulness is limited:
  - If 8b/10b is used the overhead is considerable.

Proposal

- Remove the Simple Tunneling Mapper from the D1.x.

- Add necessary clarifications and corrections to the Structure Agnostic Mapper to achieve desired functionality of the Simple Tunneling.
  - Understanding that the 8b/10b or 64b/66b coding is "lost" and 8 bit representation of the control characters (e.g., K28.5 etc) are used instead (e.g., CPRI Sync Bytes BCh or 50h).

Discussion..