1722 Simple Audio Format

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What is Simple Audio Format

- Simplest format for transmitting audio
- Higher channel counts than IEC 61883
- Samples can be integers or floating point
- All packets within a stream are the same size
- Permits any 802.1Qav-compliant packet rate

The Sample Types

- Floating Point (IEEE 754-2008)
  - 32-bit float
- Linear Integer
  - 4-byte (1 to 32 bits)
  - 3-byte (1 to 24 bits) “packed”
  - 2-byte (1 to 16 bits)

Packet Format

- Time stamp
  - There is one in every packet
  - Always corresponds to first sample in packet
- Payload-specific header flags
  - 10 bits indicating channels per frame
  - 3 bits describing sample type & interleave
  - 3 bits reserved (may want to indicate sample rates)
- Interleaved or non-interleaved sample data

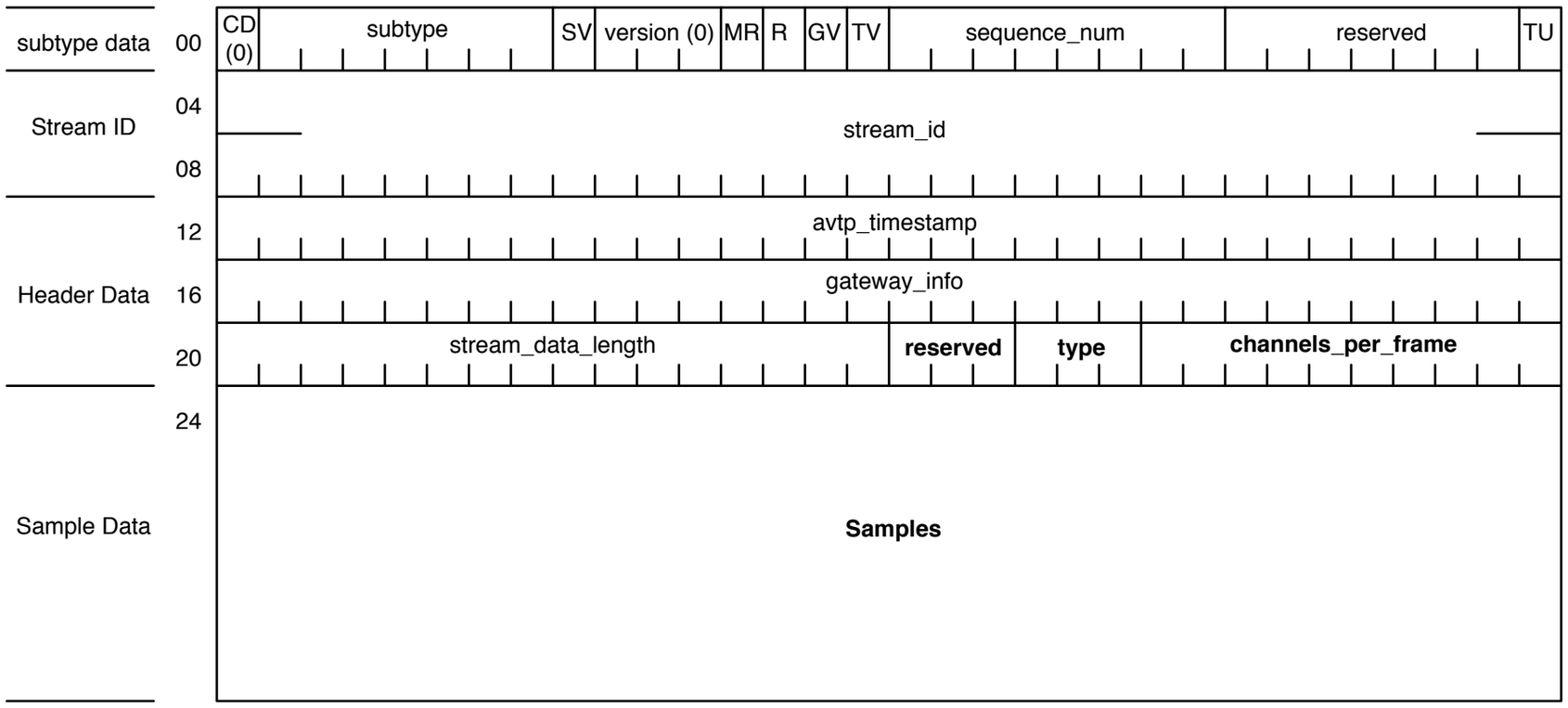
Sample Format

- Network byte order (big-endian)
- Linear integers are LSB zero padded
  - allows easy conversion between various bit widths

Interoperability

- All end stations that support simple audio format are required to implement interleaved, 4-byte linear integer format.
- Generally, a discovery protocol (such as 1722.1) will fully describe a simple audio stream.
- However, header contains enough info for an end station to determine the payload format.

Frame Format



Frame Format Example

- 4-byte integer, stereo, interleaved, 6 samples/frame