# RTP Interleaving

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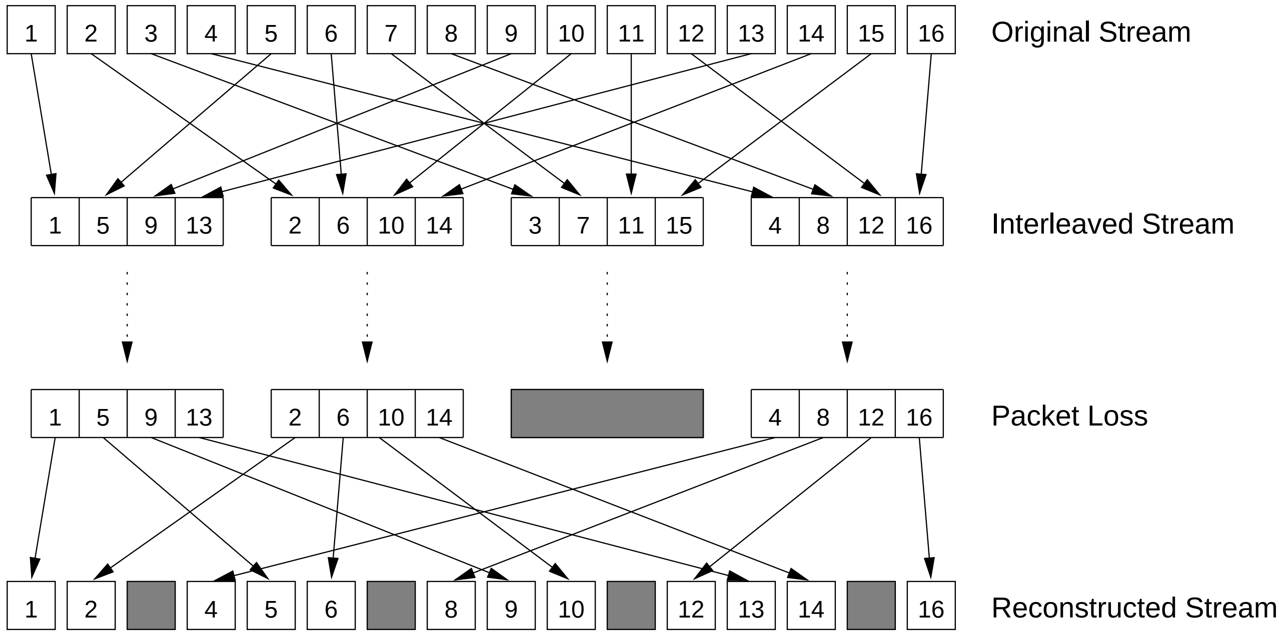
# The interleaving process




- Distributes loss, making one large loss appear as several smaller losses
- Useful if latency is not an issue, bandwidth efficient

# Packetisation options

To reconstruct the stream, the receiver must know the interleaving function.

Two ways of conveying this information:

**Implicit** where the session description conveys the interleaving function, and the packet sequence number determines the position in the sequence.

**Explicit** where each packet contains the relative position of each frame in the sequence.

# Implicit packetisation

Advantages

- Minimal bandwidth overhead

Disadvantages

- Interleaving function is fixed for the duration of a session
- Need to know talkspurt start to determine position in the sequence, can cause problems if first packet is lost

# Explicit packetisation

Advantages

- Interleaving function can change during a session
- Can build a common decoder for interleaved and redundant streams (RFC2198)
- Each packet is independently decodable

Disadvantages

- Overhead due to the timestamp information (4 bytes per frame)

# Proposal

- Reuse the payload format for redundant audio, to encode interleaved streams (draft-ietf-avt-interleaving-00.txt).
- Decoders for this format should be able to decode such streams without modification.
- Make this an explicit requirement in the next revision of RFC2198.