

RTP Interleaving

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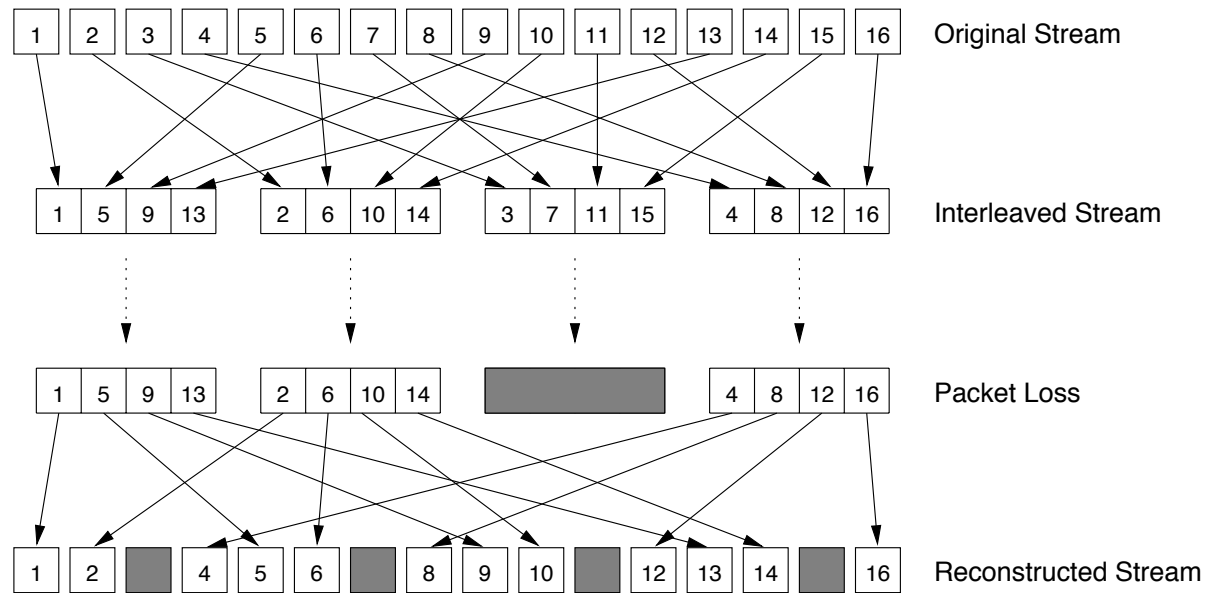
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The interleaving process



- 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.