Redundant Encodings in RTP

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Overview

- A solution to the packet loss problem.
- Originally intended for real-time audio.
- Each packet contains an alternative version of the previous packet:

  ![Diagram](image)

- Typically, the redundant copy of a packet is more heavily compressed than the primary, to reduce overheads.
Packet Format: Example

0  1  2  3
0 1 2 3 4 5 6 7 8 9 0 1 2 3 4 5 6 7 8 9 0 1
---------------------------------------------------------------------
| V=2 | P | X | CC | M | PT | sequence number of primary |
---------------------------------------------------------------------
| timestamp of primary encoding |
---------------------------------------------------------------------
| synchronization source (SSRC) identifier |
---------------------------------------------------------------------
| block PT=7 | timestamp offset | block length |
---------------------------------------------------------------------
| block PT=5 |
---------------------------------------------------------------------

+----------------+
| LPC encoded redundant data +
+----------------------------+
| DVI4 encoded primary data |
Status

Originally presented at the Montreal IETF. Minor modifications as agreed there have been implemented.

Two interworking implementations for network audio:

- UCL RAT v2.6 or later
- INRIA FreePhone v3.0.x

Internet draft: draft-perkins-rtp-redundancy-01.txt

Move to proposed standard?