RTP Payload Format for MELPe Codec

draft-demjanenko-payload-melp-02

92nd IETF - Dallas, TX

Audio/Video Transport Payloads WG

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MELPe Voice Codec

- **NATO standard STANAG No. 4591**
  - DOD MIL-STD-3005 (original MELP 2400)
  - 2400, 1200, and 600 bps
  - 22.5, 67.5, and 90 ms respective frame rates
  - Commonly used for radio communications
  - Bridged by VoIP/SIP between terrestrial and radio
  - Many non-military uses, such as secure communications between smartphones using IP networks

Draft Review Status

- Submitted 5/27/14, 10/22/14 and 12/3/14
  - Reviewed out-of-band (mostly)
  - Clarified original text
  - Simplified rate negotiation for fixed rates
  - 600 bps packing order explained as being inconsistent with 2400/1200 in STANAG 4591 (packing within draft is consistent for all rates)
  - Trellisware, Textron, SCI and others support draft
  - Joint Systems Integration Laboratory representative joining IETF payload group to express support

Open Concerns

- Is the following SDP acceptable?

  m=audio 49120 RTP/AVP 97

  a=rtpmap:97 MELP/8000

  a=fmtp:97 rate=2400,600,1200 ←

Where “rate” indicates one or more supported speech coder rates to be used in listed priority order

- An existing implementation supports only single MELP frame per RTP with the following solution

  a=maxptime:23

Permitted values are 23, 45, 68, 90, 112, 135, 156 and 180

Future

- Asking for workgroup adoption
- Promote to IETF draft
- Complete as RFC

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