

RTP Extension Headers for Audio Level Indication

draft-ivov-avt-slic-02

draft-lennox-avt-rtp-audio-level-exthdr-01

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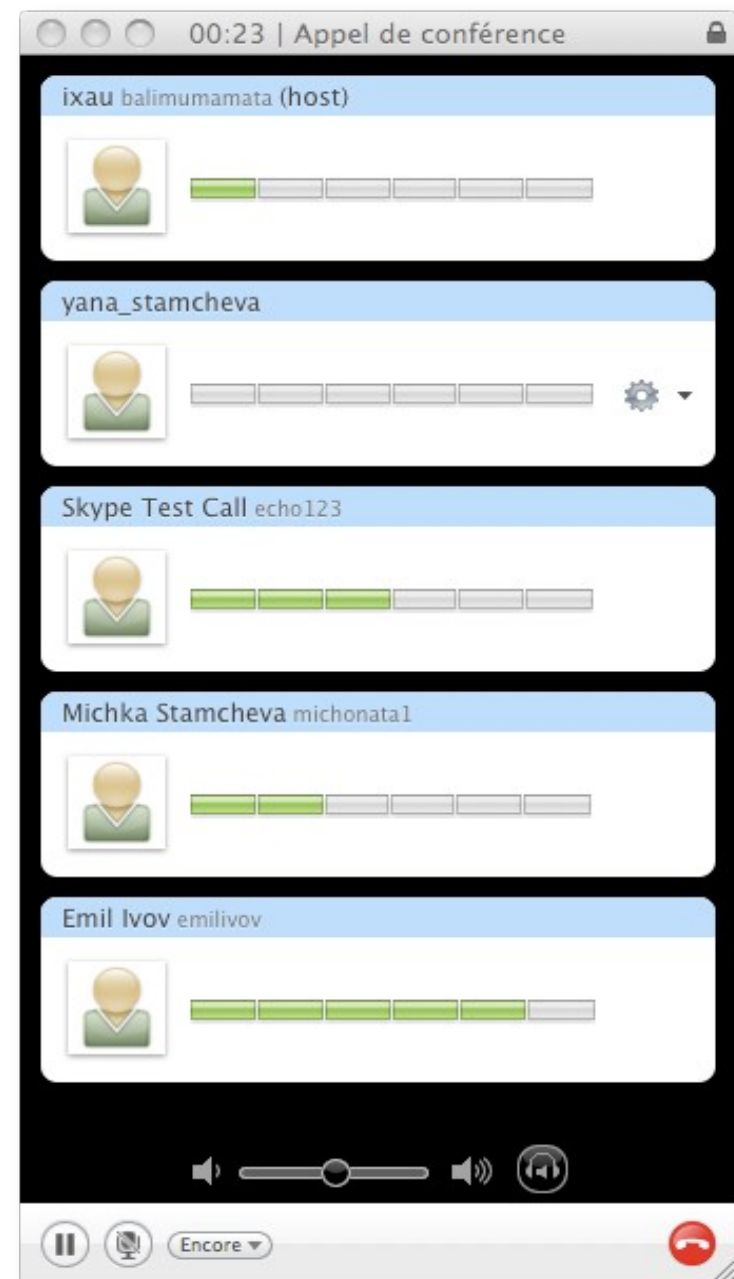
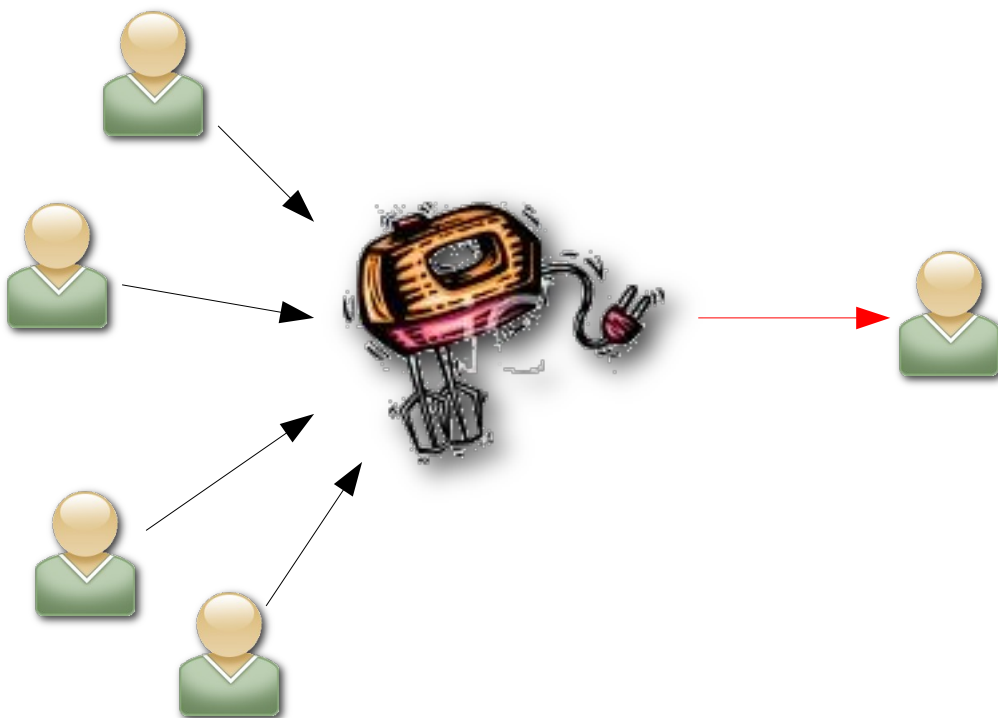
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IETF 76

Mixer-to-Client Levels

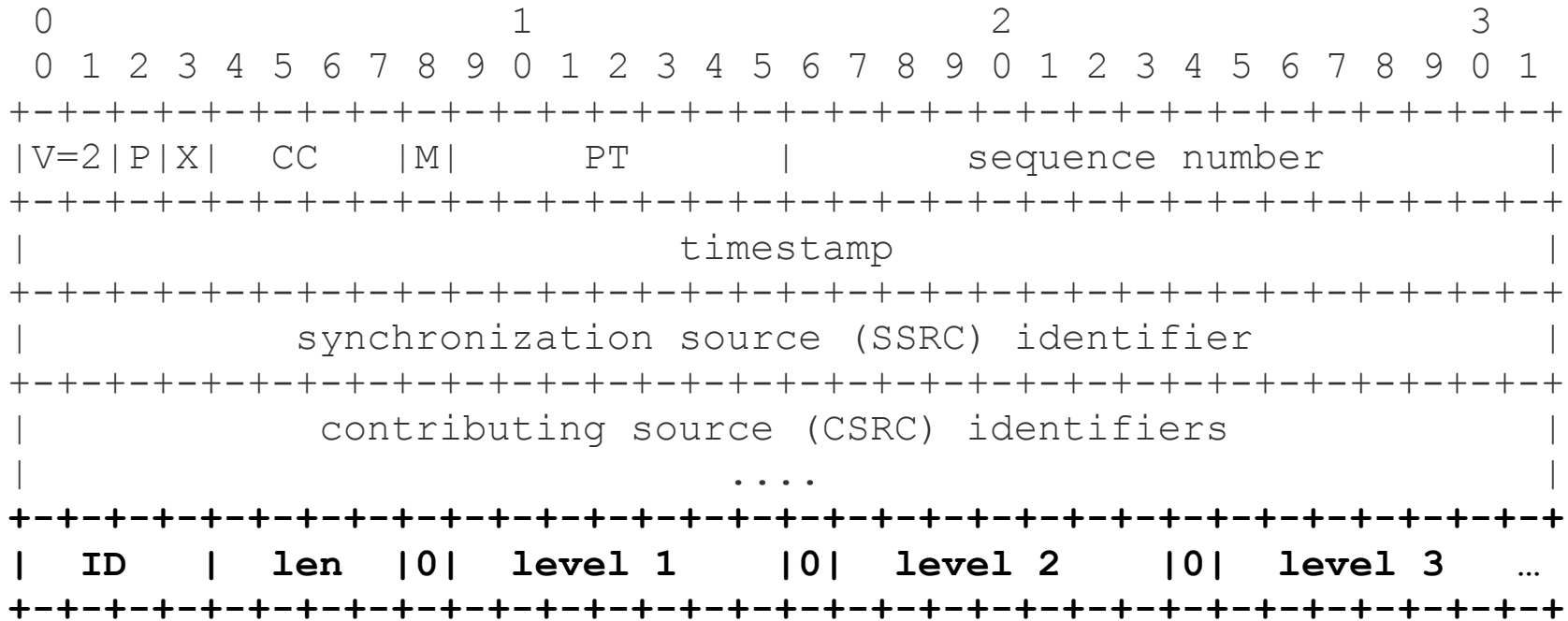
What is this about?

Delivering extended participant activity information (audio level) in a conf call



How does it work? (draft-ivov-avt-slic-02)

- Encoded as an RTP extension header (RFC5285)



- Negotiated with SDP

a=extmap:7 urn:ietf:params:rtp-hdext:csrc-audio-level

Delta-s from last time

- levels now expressed in -dBov

values range from 0 to 127 (representing 0 to -127 dBov)

```
  0 1 2 3 4 5 6 7
+--+--+--+--+--+--+--+
|0|  level      |
+--+--+--+--+--+--+--+
```

- same as in “Payload for Comfort Noise” (RFC 3389)
- same as draft-lennox-avt-audio-level-exthdr

Delta-s from last time (2)

- added a design choices section explaining the RTP transport
 - RTP vs RTCP
 - RTP vs SIP and RFC 4575
 - RTP ext hdr. vs payload

Open Mixer-to-Client specific issues:

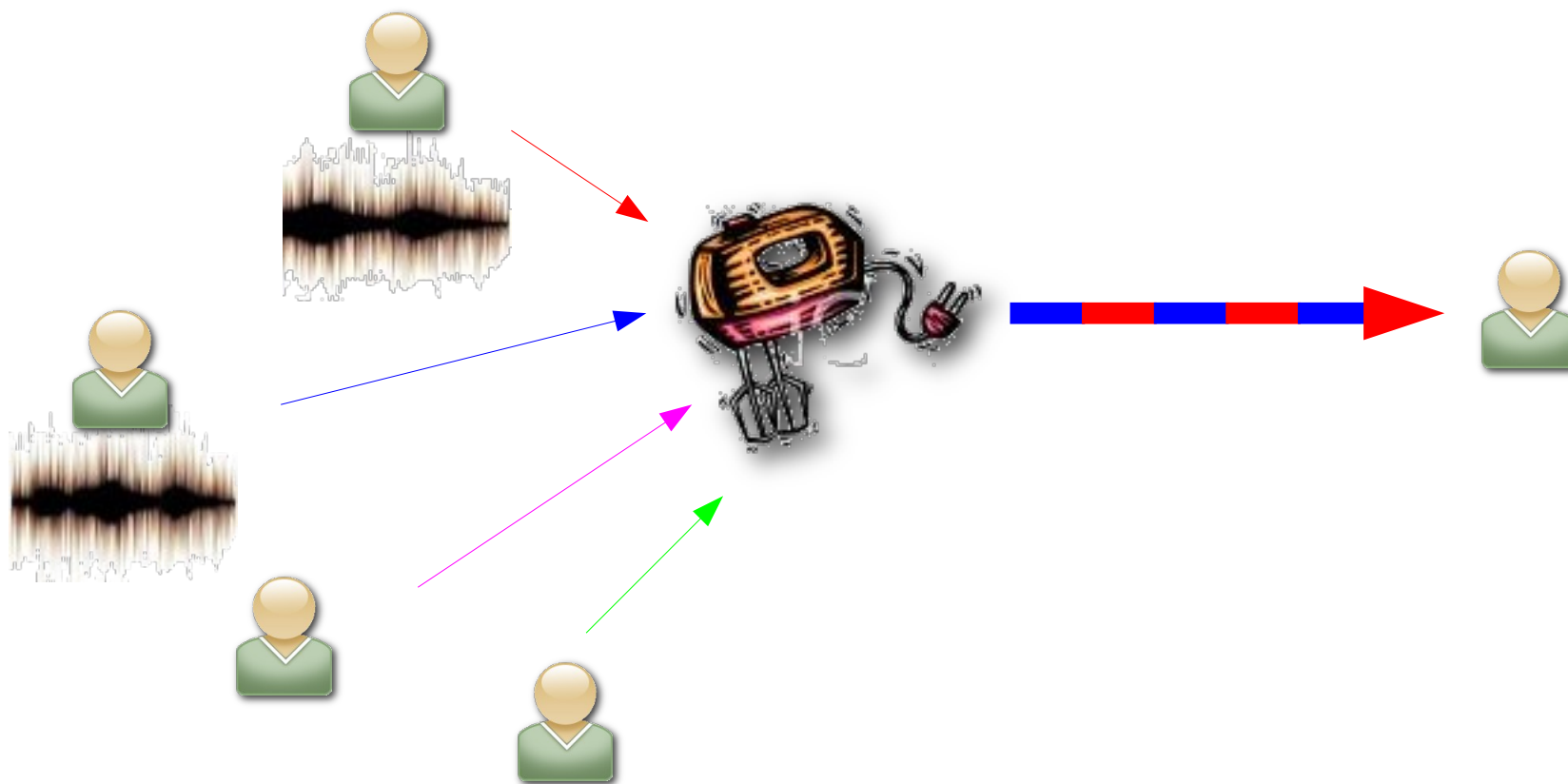
- Should we use the “0” bit for VAD?

```
  0 1 2 3 4 5 6 7  
+-+--+--+--+--+--+--+  
|0|  level  |  
+-+--+--+--+--+--+--+
```

Client-to-Mixer Levels - draft-lennox-avt-rtp-audio-level-exthdr

What is this about?

Enabling conference participants to indicate the audio level



Incentives

- Spares mixer resources (only decode over-threshold streams)
- **Facilitates implementation of client-hosted mixers**
- Provides audio level measurement reusable in draft-ivov-avt-slic

Delta-s from last time

- Changed name to more clearly distinguish from draft-ivov-avt-slic
- Changed format from a two-byte to a one-byte payload.
- Added a reference to draft.lennox-avt-srtp-encrypted-header-extensions

Delta-s from last time (2)

- Added considerations on use (Section 5)
 - Avoid making decisions on packet by packet basis
 - Applying gain control before mixing
- Limitations (Section 6)
 - dBov vs dB SPL

Common Open Issues (1)

- 1 or 2 documents
- video/text streams

Common Open Issues (2)

- Security
 - how sensitive is this data
(e.g. mixer-to-client levels hardly different from CSRCs)
 - draft-lennox-avt-srtp-encrypted-extension-headers
 - lower level