draft-ietf-avt-variable-rate-audio-00.txt

RTP Timestamp Frequency for Variable Rate Audio Codecs

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Motivation

- RTP timestamp == Audio sample rate
 - Not a MUST, but a commonly followed paradigm
 - Some RTP software relies on this
- But now there are audio codecs which are able to change sample rates on the fly
 - Which is a good thing: scalable quality/bandwidth

Proposal

- Unified RTP Timestamp Rate (URTR) of x kHz
- To be used ONLY for new RTP payload specs and for audio codecs with variable sample rate
- URTR should have a close relationship with common audio codecs
 - so to facilitate sample-exact mixing
 - integer multitude?
 - or, at least, share prime factors?

Open Issues

- Very general: is this a good idea?
- What would be a good choice for the uRTR?
 192 kHz?
- Is it a good idea to require ALL future I-Ds on audio (not only the variable clock frequency ones) to use the uRTR?
- Or only those that do not fit the uRTR (fit == subset of prime factors)?
- Revisit CD 44.1. No variable sample rate needed? Are there proposals for an 88.2 CD audio codec?