

Multiple Packetization Times in SDP: Problem Statement



draft-garcia-mmusic-multiple-ptimes-problem-00.txt

IETF 69, MMUSIC WG

July 2007

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Problem description

- SDP defines the *ptime* attribute:

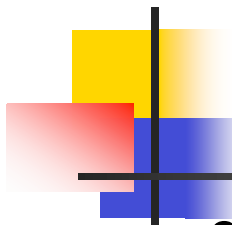
This gives the length of time in milliseconds represented by the media in a packet ... It should not be necessary to know ptime to decode RTP or vat audio, and it is intended as a recommendation for the encoding/packetisation of audio. It is a media-level attribute, and it is not dependent on charset.

- PROBLEM:

- The *ptime* attribute defines the packetization time of all the media format descriptions in the m= line
- Not possible to specify different *ptime* per media format

- BUT:

- Packetization time depends on the media format and network access technology
- Implementations may behave better under certain combinations of packetization times and media formats
- The issue has been solved with proprietary non-standardize means.



Example

v=0

o=alice 2890844526 2890844526 IN IP4 alicepc.example.com

s=

c=IN IP4 alicepc.example.com

t=0 0

m=audio 49170 RTP/AVP 0 8 97

a=rtpmap:0 PCMU/8000

a=rtpmap:8 PCMA/8000

a=rtpmap:97 iLBC/8000

a=ptime:20

Packetization time affects the three media formats

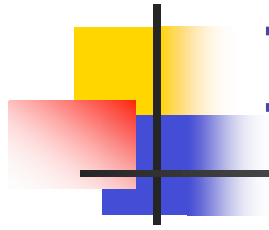


Issue: Recommendation or negotiation

- SDP says:

It should not be necessary to know ptime to decode RTP or vat audio, and it is intended as a recommendation for the encoding/packetisation of audio.

- But in reality, implementations have constraints to decode any packetization time
 - Which leads to require a negotiation rather than a recommendation



Issue: Exact value or range

- Do we need to signal an exact packetization time per media format, or a range of acceptable values



Issue: same value both directions

- If the packetization time is a recommendation, then each endpoint can recommend different values
- If the packetization time is negotiated, should it be the same in both directions?



Next steps

- We are in position to derive requirements
- And start some mail discussions about potential solutions
- Hopefully, a new draft before IETF 70 with a solution or survey of solutions.