Multiple Packetization Time in SDP

Problem statement, Requirements, BCP Solution

draft-garcia-mmusic-multiple-ptimes-problem-03.txt

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Dublin, 1/8/2008
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Problem

- SDP defines the ptime/maxptime
  - common parameter for all media formats in m-line
  - not possible to specify this in f(codec)

```
m=audio 49170 RTP/AVP 0 4 8
a=ptime:30
a=maxptime:60
```

Changes in version 03

- Move of different sections to appendix:
  - Related RFCs for ptime
  - Ad-hoc solutions for multiple ptime
  - Some background info
- Some small editorial changes

BCP Solution

- keep ptime/maxptime on media level
- No new parameters in the SDP
- Easy algorithm to determine ptime/maxptime
  - Differentiate between codec related and codec independent parameters
  - Rules for SDP parameter indications
  - Rules for packetization time for media transmission

Sources for ptime/maxptime

- Static
  - Default or manually defined values in the end-device.
- Dynamic
  - Defined by the network architecture.
- Indicated
  - Proposed value from the receiving side (from SDP)

Algorithm - parameters

- **Codec independent** parameters
  - p vector with all provided ptime values static, dynamic, indicated
  - mp vector with all provided maxptime values
- **Codec dependent** parameters
  - fc frame size codec related
  - mc maxptime codec related f(codec, frame size, frame datarate, MTU)

Algorithm - method

- packetization time for media transmission
  pt = f(p, mp, fc, mc)

- Take min. value of “mp” and “mc”
- Take max. value of “p”
- Normalize in function of the codec frame size.

Examples

p			mp			fc	mc	pt
s	d	i	s	d	i			
		20			60	30	100	30
		20			20	30	100	0
		30			30	30	100	30
		60			80	30	100	60
		20			60	20	100	20
		60			80	20	100	60
		70			200	20	100	60
		120			60	20	100	60
		120			200	10	100	100
40	50	20	200			10	100	50
40	50	20	40	50	20	10	100	20
120	40		150	200	100	10	100	100
90	40	20	150	200	100	10	100	90
						10	10	10
						30	20	0
						30	80	30
	60					30	80	60

Next steps

- Is there interest in this method?
- Add use cases based on real-life problems and indicate how this BCP can solve different interworking issues