SDP Media Capability Negotiation

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draft-ietf-mmusic-sdp-media-capabilities-02.txt
Media Capabilities

• Extends the base capabilities negotiation for RTP based media

• Codec definition can be very complicated
  – Simple media codec
  – Redundancy codecs (like FEC)
  – Composite like layered codecs

• Work is not trying to cover every combination (not H.245)

• Updated from 01 to align with base capability negotiation and add new attributes.
Solution model

- Unique codec numbers at session and media level
- Configuration parameters for rtpmap and fmmtp associated with one or more codec numbers
- Payload types are assigned to media codec numbers (with associated parameters) in each potential configuration (pcfg).
- Define media level bandwidth capability
Solution model

• Latent configuration specify configuration without a corresponding potential or actual media line.
  – Example offer an actual audio (m-line) and a capability to support video later.
• Latent configuration (a=lcfg) is similar in syntax to potential configuration
• There is no payload type associated with lcfg because no actual media is being offered.
Extends capability negotiation - example

- Adds media negotiation attributes
  a=creq:med-v0
  a=mcap:1 audio g729 iLBC PCMU g729
  a=ecap:2 8000
  a=fcap:1 annexb:no
  a=fcap:2 mode=20
  a=tcap:1 RTP/SAVP
  m=audio 3456 RTP/AVP 0 18
  a=acap:1 crypto:1 AES_CM_128_HMAC_SHA1_32
    inline:NzB4d1BINUAvLEw6UzF3WSJ+PSdFcGdUJShpX1Zj|2^20|1:32
  a=pcfg:1 m=1,3|4,3 t=1 a=1 pt=1:100,4:101,3:102
  a=pcfg:2 m=2 pt=2:103
Bandwidth capability – example

m=video 49170 RTP/AVP 99
b=TIAS:500000
a=rtpmap:99 H263-1998/90000
a=fmtp:99 CIF=4; QCIF=2
a=fcap:1 QCIF=2
a=fcap:2 CIF=4; QCIF=2;F=1;K=1
a=bcap:1 TIAS:360000
a=pcfg:1 m=1 b=1 pt:100
a=pcfg:2 m=2 pt:101
Open issues

• Bandwidth attribute is defined for media level. Reason is that session level b-line defines maximum for the whole session and the media level can limit the actual total maximum.

• Do we need to support a= attributes in lcfg. What about keys or at least key method.

• Final format is still open to suggestion – please review
Next step

- Finish the missing sections in the document
- Go to WG last call