

# SDP Media Capability Negotiation

Bob Gilman, Flemming Andreasen and Roni Even

[draft-ietf-mmusic-sdp-media-capabilities-03.txt](https://datatracker.ietf.org/doc/draft-ietf-mmusic-sdp-media-capabilities-03.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

# Changes from version 02

- The “mcap” attribute includes the role of “ecap”
  - a=mcap:1 g729/8000/1
- “fcap” attribute is now “mfcap”. The replacement rules for fmtp are added
- New “mscap” attribute for specific media attributes other than rtpmap and fmtp.
- Update the processing rules for mcap, mfcap and mscap
- A new parameter “mt=” added to lcfg to specify media type (audio, video)

# Extends capability negotiation - example

- Adds media negotiation attributes

```
a=creq:med-v0
m=audio 3456 RTP/AVP 0 18
a=tcap:1 RTP/SAVP
a=rtpmap:0 PCMU/8000/1
a=rtpmap:18 G729/8000/1
a=fmtp:18 annexb=yes
a=mcap:1,4 g729/8000/1
a=mcap:2 PCMU/8000/1
a=mcap:5 telephone-event/8000
a=mfcap:1 annexb=no
a=mfcap:4 annexb=yes
a=mfcap:5 0-11
a=acap:1 crypto:1 AES_CM_128_HMAC_SHA1_32
inline:NzB4d1BINUAvLEw6UzF3WSJ+PSdFcGdUJShpX1Zj|2^20|1:32
a=pcfg:1 m=4,5|1,5 t=1 a=1 pt=1:100,4:101,5:102
a=pcfg:2 m=2 t=1 a=1 pt=2:103
a=pcfg:3 m=4 t=2 pt=4:18
```

# Extends capability negotiation - example

- MSCAP usage with rtcp-fb and the replacement rules

```
m=video 51372 RTP/AVP 98  
a=rtpmap:98 H263-1998/90000  
a=tcap:1 RTP/AVPF  
a=mcap:1 H263-1998/90000  
a=mscap:1 rtcp-fb ccm tstr  
a=mscap:1 rtcp-fb ccm fir  
a=mscap:1 rtcp-fb ccm tmmbr smaxpr=120  
a=pcfg:1 t=1 m=1 pt=1:98
```

the potential configuration, if chosen, is equivalent to:

```
m=video 51372 RTP/AVP 98  
a=rtpmap:98 H263-1998/90000  
a=rtcp-fb:98 ccm tstr  
a=rtcp-fb:98 ccm fir  
a=rtcp-fb:1 rtcp-fb ccm tmmbr smaxpr=120
```

# Next step

- The draft has changed from 02 we need reviewers for the draft.
- Need examples for challenging cases.
- Are we on the right track?
- Open issues:
  - do we need to support grouping in this draft.
  - what are the rules for constructing capability attributes in relation to conventional attributes? (was on the mailing list)