

Negotiation of Generic Image Attributes in SDP

draft-ietf-mmusic-image-attributes-01

In short

- Updates since individual draft -02
 - Clarifications regarding :
 - general syntax (ABNF)
 - datatypes (real, integer)
 - usage with SDP capability negotiation framework
 - Know issues covered
 - Still perhaps one left...

Possible issue

- An answerer may completely replace the parameters in its recv direction
- Is this an acceptable/desired behavior ?
 - If offer does not support the changed parameter then the attribute will only become a one-way attribute
- Better to completely remove recv direction in answer if no good alternatives exist ?

Offer:

```
m=video 49154 RTP/AVP 99
a=rtpmap:99 H263-2000/90000
a=fmtp:99 ...
a=imageattr:99 \
  send [x=176,y=144] [x=224,y=176] [x=272,y=224] [x=320,y=240] \
  recv [x=176,y=144] [x=224,y=176] [x=272,y=224] [x=320,y=240]
```

Answer:

```
m=video 49154 RTP/AVP 99
a=rtpmap:99 H263-2000/90000
a=fmtp:99 ...
a=imageattr:99 \
  recv [x=200,y=150] [x=220,y=160,q=0.6] \
  send [x=224,y=176]
```

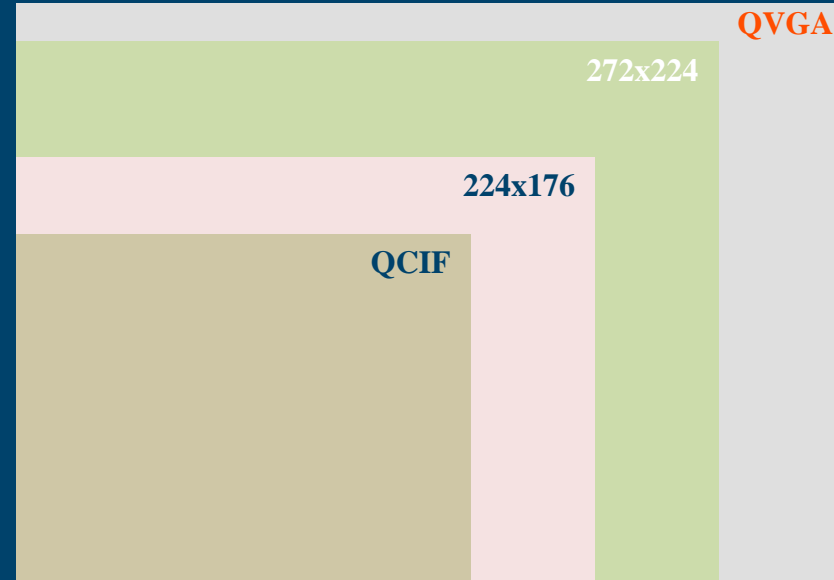
Parameters completely replaced

One of the alternatives in offers recv direction picked.

Example

Simplified example from 3GPP TS26.114

- Offer the image sizes in the figure
 - Equal preference unless specified by q parameter.

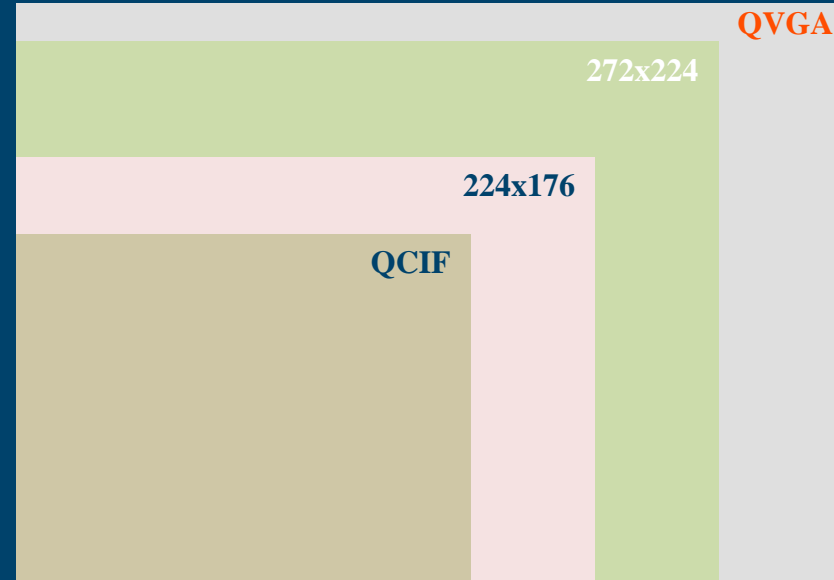


```
1st offer:
a=tcap:1 RTP/AVP
m=video 49154 RTP/AVP 99
a=pcfg:1 t=1
b=AS:213
b=RS:0
b=RR:2500
a=rtpmap:99 MP4V-ES/90000
a=fmtp:99 profile-level-id=3; \
    config=000001B003000001B50900000100000001200084571C285020F0A21F
a=imageattr:99 \
    send [x=176,y=144] [x=224,y=176] [x=272,y=224] [x=320,y=240] \
    rcv [x=176,y=144] [x=224,y=176] [x=272,y=224,q=0.6] [x=320,y=240]
```

Config parameter based on 320x240

Offerer prefers to receive 272x224

- Answerer picks the desired image size in send and recv directions



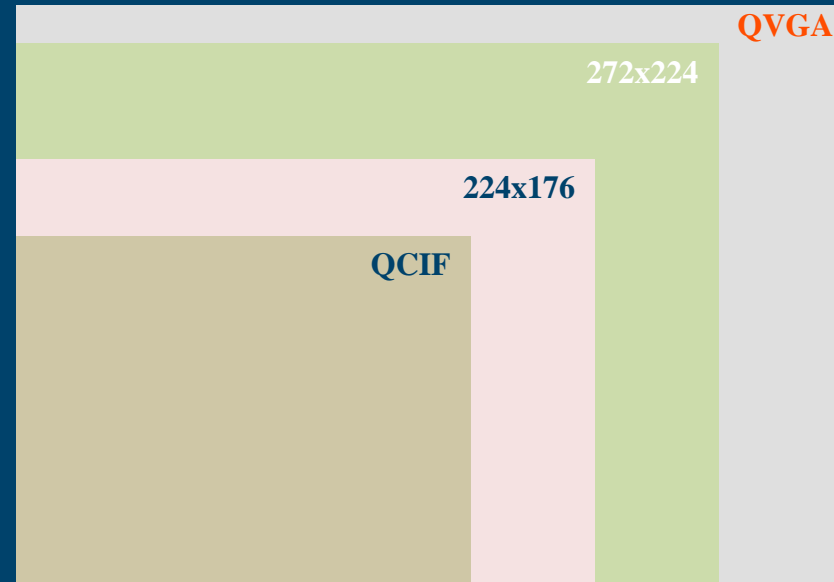
Config parameter based on 272x224

Answerer accepts to send 272x224...

... can also receive 272x224 but prefers to receive 320x240

```
1st answer:
m=video 49154 RTP/AVPF 99
a=acfg:1 t=1
b=AS:107
b=RS:0
b=RR:2500
a=rtpmap:99 MP4V-ES/90000
a=fmtp:99 profile-level-id=2131
config=000001B002000001B509000001000000012000813D4C284420E0A21F
a=imageattr:99 send [x=272,y=224] recv [x=320,y=240,q=0.6] [x=272,y=224]
```

- Different image sizes in the two directions, 2nd offer/answer with config for 320x240 needed



2nd offer:

```
m=video 49154 RTP/AVP 99
```

```
a=tcap:1 RTP/AVPF
```

```
a=pcfg:1 t=1
```

```
b=AS:107
```

```
b=RS:0
```

```
b=RR:2500
```

```
a=rtpmap:99 MP4V-ES/90000
```

```
a=fmtp:99 profile-level-id=2; v
```

```
config=000001B002000001B509000001000000012000845D4C285020F0A21F
```

```
a=imageattr:99 send [x=320,y=240] rcv [x=272,y=224]
```

Config
parameter
based on
320x240

Other

- WGLC after IETF-74 ?
 - No comments/objections sofar from MMUSIC
 - Remaining issue needs to be resolved first
- Image attribute included in 3GPP TS26.114
 - http://www.3gpp.org/ftp/Specs/archive/26_series/26.114/26114-820.zip
 - sar parameter likely not used (only square pixels considered)