SDP Attributes Multiplexing

draft-nandakumar-mmusic-sdp-mux-attributes
Version :03 → :05

• Submitted a maintenance version -04 with formatting nits.

• Renamed column “Current” to “Level” to match with the SDP terminology.

• 60*/65 Sections reviewed by the RFC authors and comments incorporated. THANK YOU for all the reviewers.

* some sections correspond to open issues.
Q1 : PT Reuse

Example 1: a=rtcp-fb:<PT>

a=group:BUNDLE audio video
m=audio 3456 RTP/AVP 98
a=mid:audio
a=rtpmap:97 iLBC/8000
a=rtcp-fb:nack

m=video 3456 RTP/AVP 98
a=mid:video
a=rtpmap:98 VP8/90000
a-rtcp-fb:98 nack rpsi

Example 2: a=rtcp-fb:<PT>

a=group:BUNDLE video1 video2
m=video 3456 RTP/AVP 98
a=mid:video1
a=rtpmap:98 VP8/90000
a=rtcp-fb:98 ack //fb-type ACK

m=video 3456 RTP/AVP 98
a=mid:video2
a=rtpmap:98 VP8/90000
a-rtcp-fb:98 nack rpsi //fb-type NACK
Q1 : PT Reuse – 2

Example 3 : a=depend:<PT>

a=group:BUNDLE L1 L2 L3
a=group:DDP L1 L2 L3

m=video 3456 RTP/AVP 97
a=mid:L1
a=rtpmap:98 H264/90000
a=framerate:15

m=video 3456 RTP/AVP 98
a=mid:L2
a=rtpmap:98 H264-SVC/90000
a=framerate:15
a=depend:98 lay L1:97

m=video 3456 RTP/AVP 98
a=mid:L3
a=rtpmap:98 H264-SVC/90000
a=framerate:30
a=depend:98 lay L1:98,97
Proposals

• Don’t Allow PT to be re-used ... Assign category NORMAL

• Allow PT re-use, IFF the codec configuration matches .. Assign category NORMAL
  • *But, how do we resolve a=depend scenario, for example?*
Q2 : SSRC Repetition

Example 1: a=ssrc: .....  

a=group:BUNDLE audio video  
m=audio 3456 RTP/AVP 98  
a=.mid:audio  
a=rtpmap:97 iLBC/8000  
a=ssrc:1234 cname:user@example.com  

m=video 3456 RTP/AVP 99  
a=mid:video  
a=rtpmap:98 VP8/90000  
a=ssrc:1234 cname:user@example.com

Example 2: FEC Grouping

a=group:BUNDLE m1 m2 r1  
a=group:FEC-FR m1 m2 r1  

m=audio 3456 RTP/AVP 97  
a=mid:m1  
a=rtpmap:98 VP8/90000  
a=ssrc:1111 cname:user@example.com  

m=video 3456 RTP/AVP 98  
a=mid:m2  
a=rtpmap:98 VP8/90000  
a=ssrc:1111 cname:user@example.com  

m=video 3456 RTP/AVP 99  
a=mid:r1  
a=rtpmap:99 VP8/90000  
a=ssrc:1111 cname:user@example.com  
a=rtmp:99 L=10; D=10; repair-window=400000
Proposals

• Don’t Allow SSRC repetition, assign category NORMAL.

• Allow SSRC to be repeated, assign category SPECIAL and add the following notes

“SSRCs are allowed to be repeated IFF the media stream satisfies more than one m=line, in which case, the behavior is defined by the individual sources “

(source: Jonathan Lennox)
Q3: Mux RTP with Non-RTP

• Should multiplexing m=lines describing RTP Streams with non RTP streams over same 5-tuple be allowed?

Proposal:
Yes. Category assignments are application protocol specific.
Q4: O/A vs Declarative SDP

• Should this draft deal with analysis for O/A SDP usage alone?

Proposal:
Yes, it aligns with the BUNDLE spec.
Next Steps

• Looking for reviewers for the following RFCs

  RFC4570 – SDP Source Filters
  RFC4796 – MSRP Relays
  RFC4091 – ANAT Semantics
  RFC4145 – Connection Oriented Media
  Section 5.46 – Historical Attributes (rtpred1, rtpred2, PSCid, bc_service, bc_program, bc_service_package)

• Proof-Read and update any inconsistencies.
Thank You