

Signaling media decoding dependency in Session Description Protocol – draft-ietf-mmusic-decoding-depedency-00

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Signaling: media stream dependency

- Motivation:
RTP session multiplexing of layered / MDC media -
Partitioning of layered / multi description coding (MDC) media bit-stream to different m-lines
- Problem:
Session description with multiple m-lines of same type (e.g. video), how to express different types of dependencies between those lines
- First customer:
 - RTP Payload for Scalable Video Coding (SVC)
 - May also be relevant to draft-lakaniemi-avt-rtp-evbr-00 and draft-wang-avt-rtp-mvc-00

Signaling mechanism, extended by *payload type*:

- SDP grouping (RFC3388): **DDP** – ‘Decoding Dependency’
- Media streams identified by *mid*
+ use **payload type references** (as suggested by Magnus)
- New media level attribute:
a=depend: 1*(Payload-type TYPE 1*(MID:Payload-type-dependency))
 - ***MID*** of referenced session
 - ***Payload-type***: Corresponding PT in session
 - ***Payload-type-dependency***: Corresponding PT in referenced session
 - ***Type***:
 - lay*** – layered decoding dependency
 - mdc*** – MDC dependency

SDP example

a=group:**DDP 1 2 3**

m=video 40000 RTP/AVP 94 194

a=rtpmap:**94** H264/90000

a=rtpmap:**194** H264/90000

a=mid:**1**

m=video 40004 RTP/AVP 96 196

a=rtpmap:**96** H264-SVC/90000

a=rtpmap:**196** H264-SVC/90000

a=mid:**2**

a=**depend:96 lay 1:94, 196 lay 1:194**

m=video 40006 RTP/SAVP 100 200

a=rtpmap:**100** H264-SVC/90000

a=rtpmap:**200** H264-SVC/90000

a=mid:**3**

a=**depend:100 lay 1:94 2:96,200 lay 1:194, 2:196**

other changes

- **Relative to individual submission -04 :**
 - Clarified:
Capability Negotiation is not covered by this draft, should be covered by additional draft.

Traffic on mailing list

- Roni:
 - Should extend ABNF description, missing definitions:
All definitions are there, may clarify text
 - Important issue, backward compatibility:
Is already in the draft

Open issue

- As discussed yesterday in AVT:

We may need additional signaling of RTP timestamp offsets per media stream for allowing packet reordering based on RTP mechanisms

Status

- Ready for WGLC?