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?