

Signaling media decoding dependency in Session Description Protocol – draft-schierl-mmusic-layered-codec-04

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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 treat them
- Guidance from AVT / MMUSIC chairs:
Generic mechanism required for RTP Payload for H.264 - Scalable Video Coding (SVC)

Signaling mechanism (*stable since -00*):

- Extended SDP grouping (RFC3388):
DDP – ‘Decoding Dependency’ group
- Media streams identified by ***mid***
- New media level attribute:
a=depend:TYPE *(mid)
- ***TYPE:***
 - lay*** – layered decoding dependency
 - mdc*** – MDC dependency

SDP example with different payload types and RTP profiles:

```
a=group:DDP 1 2 3 4
m=video 40000 RTP/AVP 94
a=rtpmap:94 H264/90000
a=mid:1
m=video 40002 RTP/AVP 95
a=rtpmap:95 H264-SVC/90000
a=mid:2
a=depend:lay 1
m=video 40004 RTP/AVP 96
a=rtpmap:96 H264-SVC/90000
a=mid:3
a=depend:lay 1
m=video 40008 RTP/SAVP 100
k=uri:conditional-access-server.example.com
a=rtpmap:100 H264-SVC/90000
a=mid:4
a=depend:lay 1 3
```

draft version -02, -03 changes

- **Relative to -02 :**
 - Added: Declarative and Offer/Answer usage section
 - Extended definition and use-case section
 - Removed SSRC multiplexing,
also removed from RTP Payload for SVC
- **Relative to -03 :**
 - Restricted to: grouping of m-lines of same media type
 - All related media streams must be signaled for m-lines
 - Improved Offer/Answer section
 - Editorial improvements

Traffic on mailing list

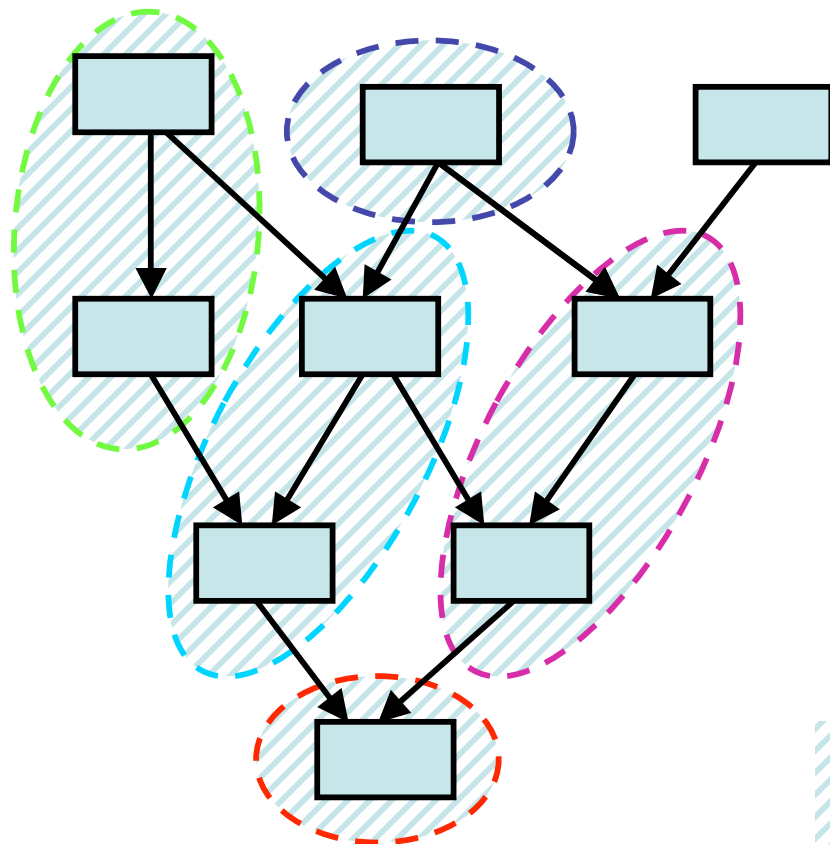
- Dave: 3GPP specific question
 - One repair stream for one specific media codec
 - Outcome: will be solved in 3GPP
- Roni: General framework for describing relation
 - Alternate offers, repair streams, decoding depend...
 - Our decision: This draft will focus on the case - relations of the same media type within the same media bit-stream only
- More discussion regarding SSRC mux before San Diego meeting

WG status

- Working group status?
 - Since basic mechanism (SDP dependency grouping + dependency attribute) is stable.

BACKUP SLIDE: Dependencies

Hierarchical



Multi Description

