Signaling of layered and multi description media in Session Description Protocol –

draft-schierl-mmusic-layered-codec-01.txt

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draft version 00: Changes

• Title changed
• Added signaling for in-media stream dependency
• Removed media describing attributes (fgs-capability, resolution), should go into a separate draft
• Removed – ‘Equal dependency’ scenario
• Extended definition section
• Examples for Multi Description Coding (MDC)
• New use-case for layered transport
• Editorial improvements throughout the document
Signaling 1 (from version-00): media stream dependency

- Distribution of layered/mdc media stream onto different m-lines
- Extended SDP grouping (RFC3388):
  DDP – ‘Decoding Dependency’ group
- Media streams identified by mid
- Additional media level attribute:
  a=depend:TYPE *(mid)
- TYPE:
  lay – layered decoding dependency
  mdc – multi description decoding depend.
Signaling 2 (*new*): in-media stream dependency

- Preference for SSRC multiplexing (IETF66)
- Preference for explicit SSRC signaling (IETF67)
- Out-of-band SSRC
- SSRC must still be useable for differentiation between sources (cameras, etc.) of a participant
- SSRC should also be used for differentiation between layers
- Announced SSRC maybe out of date!
- Collision problem: Yes, need to further think about it
- But, that all are avt related issues.
Signaling 2 (new): in-media stream dependency (cont.)

• New media level attribute for in-stream dependency signaling:

   \[a=instreamdpd:TYPE \ ID \ SSRC \ *(DPD-ID)\]

   \[\text{TYPE: } \text{lay-ssrc, mdc-ssrc} \]
   \[\text{ID: } \text{identiﬁng SSRC for referencing purpose} \]
   \[\text{SSRC: } \text{actual SSRC value} \]
   \[\text{DPD-ID: } \text{Depending SSRCs, identiﬁed by ID} \]

• Multiple of that attribute per m-line
• Allows for mixing with media stream dependency signaling
Signaling 3: backward compatible base-layer

- SVC media stream contains H.264 compliant base-layer

- How to guarantee backward compatibility with old receivers?

- Base-layer announced twice: two m-lines with same transport address, but different payload, codec specific parameters and dependency signaling etc.
Open issues/TBD:

• Should SSRC signaling go into the mmusic draft?
• The answer in avt: Yes
• What’s with mmusic?

• TBD: Work out generic and more matured SSRC signaling solution, since presented one: quick and …
Thanks for your attention!
Dependencies

Hierarchical

Multi Description

media stream