

Signaling media decoding  
dependency in SDP -  
draft-schierl-mmusic-layered-codec-00.txt

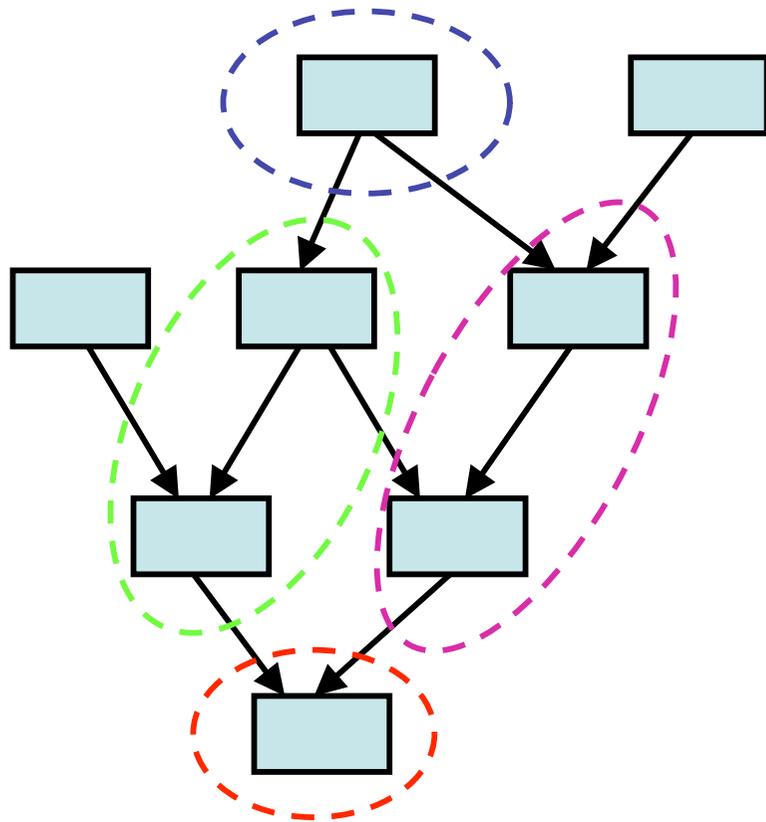
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# Motivation

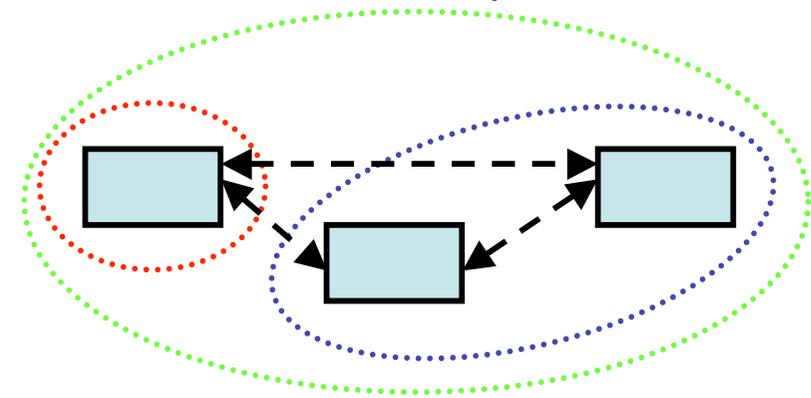
- What: Layered multicast
- SDP allows bunch of addresses for layered multicast, but
- SDP does not take differences and dependencies of transport streams into account (format specific parameter, payload type, media properties/capabilities)
- Guidance from mmusic chairs for generic signaling, during discussion on SVC payload format (draft-wenger-avt-rtp-svc-02.txt)
- Signaling should also work for e.g. MDC - multi description coding (input: draft-vitali-ietf-avt-mdc-lc-00.txt)

# Dependencies

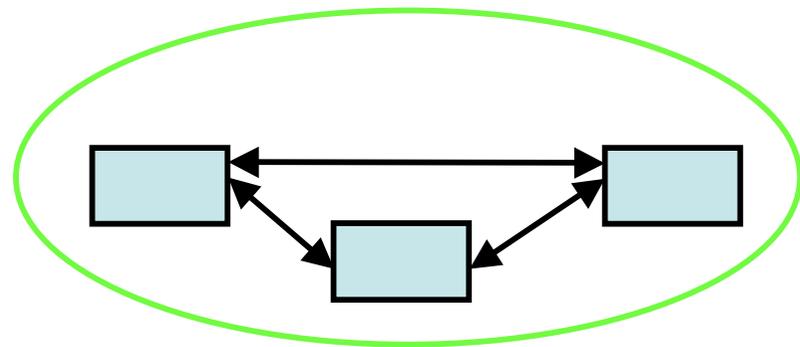
Hierarchical



Multi Description



Equal Dependency



# Design Principles

- Basic idea:
  - Differentiation in transport by using additional media descriptions for layer(s)
  - Extending SDP grouping (3388)
- Current assumption: Description of dependency on media stream level only
- Identification of layers in media stream currently not considered
- Assuming: No additional demultiplexing points within media stream, for layer identification

# Mechanism

- New grouping type DDP(Decoding Dependency)
- New media attribute “a=depend:” followed by type of dependency: “lay”, “mdc” or “eql”
- Media streams which the stream depends on are signaled as following list of stream identifiers, e.g. hierarchical: “a=depend:lay 1 2”
- Further media attributes describing media stream properties/capabilities: “a=resolution” and “a=fgscapability”

# Status

- revision-00 status
- Description of media capabilities - more work required: input from Jonathan (mailing list)
- Missing examples for layered audio codecs, equal dependency and MDC
- Open issues (next slide)

# Open Issues

- Description of layer(s) contained in media stream, makes sense only, if layer(s) can be identified on media level
- But: No further demultiplexing on media/transport level for layer identification
- One solution:  
Generic description of layer(s) in SDP, but mapping by: payload specific mechanism, does not work within security!
- Second solution:  
New demux points: I believe NO, refer to avt mailing list traffic (Colin)
- Are there other options? Maybe joint discussion within avt?

**Thanks for your attention!**