SDP syntax and interaction with CLUE negotiation

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CLUE encodings via SDP

- Current draft uses existing attributes only
  - New attributes or other syntax for multiplexing to be used when that is defined
- Encodings expressed as 'sendonly' m-lines
  - Codec-dependant on what limitations can be expressed in this way
- Requests for encodings expressed as 'recvonly' m-lines
- O/A rules do mean additional O/As in Call Flows and increased probability of glare at the start of the call

Establishing which audio/video m-lines are CLUE controlled

- CLUE-controlled audio/video has additional constraints, due to CLUE negotiation

- Unless ALL media is CLUE controlled, need to distinguish between m-lines

- Draft suggests use of grouping framework with 'CLUE' semantic to group m-lines under control of a CLUE channel

'mid' and 'label'

- Draft uses mid to identify m-lines for grouping
- Draft uses label to identify m-lines for referencing from CLUE messages
- Do we actually need both?

Signalling CLUE support

- Initial SDP offer should not include additional CLUE-controlled m-lines; new O/A once far end's CLUE support has been established

- What signifies far end's support for CLUE?
  - CLUE channel in SDP?
  - SDP grouping 'CLUE' semantic?
  - Media feature tag?
  - Something else?

SDP and CLUE independence

- Some operations are non-atomic, as they require changes to both SDP and CLUE signalling

- SDP and CLUE messages are independent – independent state machines which do not affect or depend on the other

- Media MUST NOT be sent unless both SDP and CLUE information is present
  - Paul points out that ICE/NAT keepalives should be allowed

Implications of independence

- Implementation receiving SDP offer with new, CLUE-controlled encoding for which it does not have capture information must either:

- Reject the m line (or accept inactive), requiring a new offer/answer when the capture info arrives

- OR accept the m line on the assumption it will want it
  - No requirement for the far end to ever send a matching CLUE Advertisement

Recommended operation

- Draft recommends implementations do not act until they have information from both CLUE and SDP

- Draft also recommends sender prioritises sending new CLUE information over SDP
  - Reduces cases where receiver must send an SDP answer with incomplete information, and hence reduces O/A exchanges