draft-wenger-clue-transport-02

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Assumptions

1. Three-way message (Consumer Capability Message (CCM), Provider Capability Announcement, Consumer Configure Request)
2. Clue messages to be exchanged at setup and during call, latency in seconds range OK
3. Clue framework requires message exchange not directly implementable with Offer/Answer (independent from CCM)
4. At least one (initial) Offer/Answer request required
    1. To establish knowledge of CLUE capability
    2. To establish media using “normal” SDP O/A procedures
    3. Perhaps more than one O/A exchange, i.e. to make SBCs happy

Options for CLUE message Transport

- "Transport" of those messages NOT representable by O/A (Assumption 3).
- Signaling plane-based
  - SIP over UDP, need for reliability and fragmentation of large messages
  - 1.1 Use SDP O/A, a non-option
  - 1.2 Use SDP MIME body for CLUE, in separate (parallel?) negotiation based on INVITE/UPDATE (akin siprec-protocol-03)
    - RE-INVITE timing issue
  - 1.3 Define SIP-INFO package
  - 1.4 other SIP options (i.e. SUBSCRIBE/NOTIFY)
- Media plane-based
  - Control channel gets established over UDP, CLUE messages exchanged over something like BFCP over UDP, TBD

Options for CLUE message content representation

- Content representation must be SDP only for transport option 1.1 (complete CLUE transfer in O/A), which has already been identified as a non-starter
- For all other options, we have freedom of choice between (for example):
  - XML: flexible, verbose, generally preferred
  - SDP: inflexible, compact
  - Other stuff

How to continue…

- Seem to converge towards:
  - Use SDP O/A for media setup
  - Use XML for CLUE messages
- Open:
  - Put CLUE messages onto SIP (options 1.2, 1.3, 1.4) or media plane (option 2)
- Next steps
  - Write up schema for CLUE messages
  - Decide on media plane vs. SIP
  - Decide on SIP option or device media plane transport protocol