Status of MMUSIC
SDP Capability Negotiation

IETF 68

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Since Last IETF

- Formed Design Team consisting of
  - Roni Even, Robert Gilman, Matt Lepinski, Joerg Ott, Colin Perkins, Thomas Stach, and Flemming Andreasen
- Additional input and feedback from
  - Francois Audet, John Elwell, Cullen Jennings, and Dan Wing
- Weekly conference calls from 12/12/06 to 2/27/07
  - Adopted <draft-andreasen-mmusic-sdp-capability-negotiation-01.txt> as starting point
  - Split document in two
    - Requirements: Initial design team focus
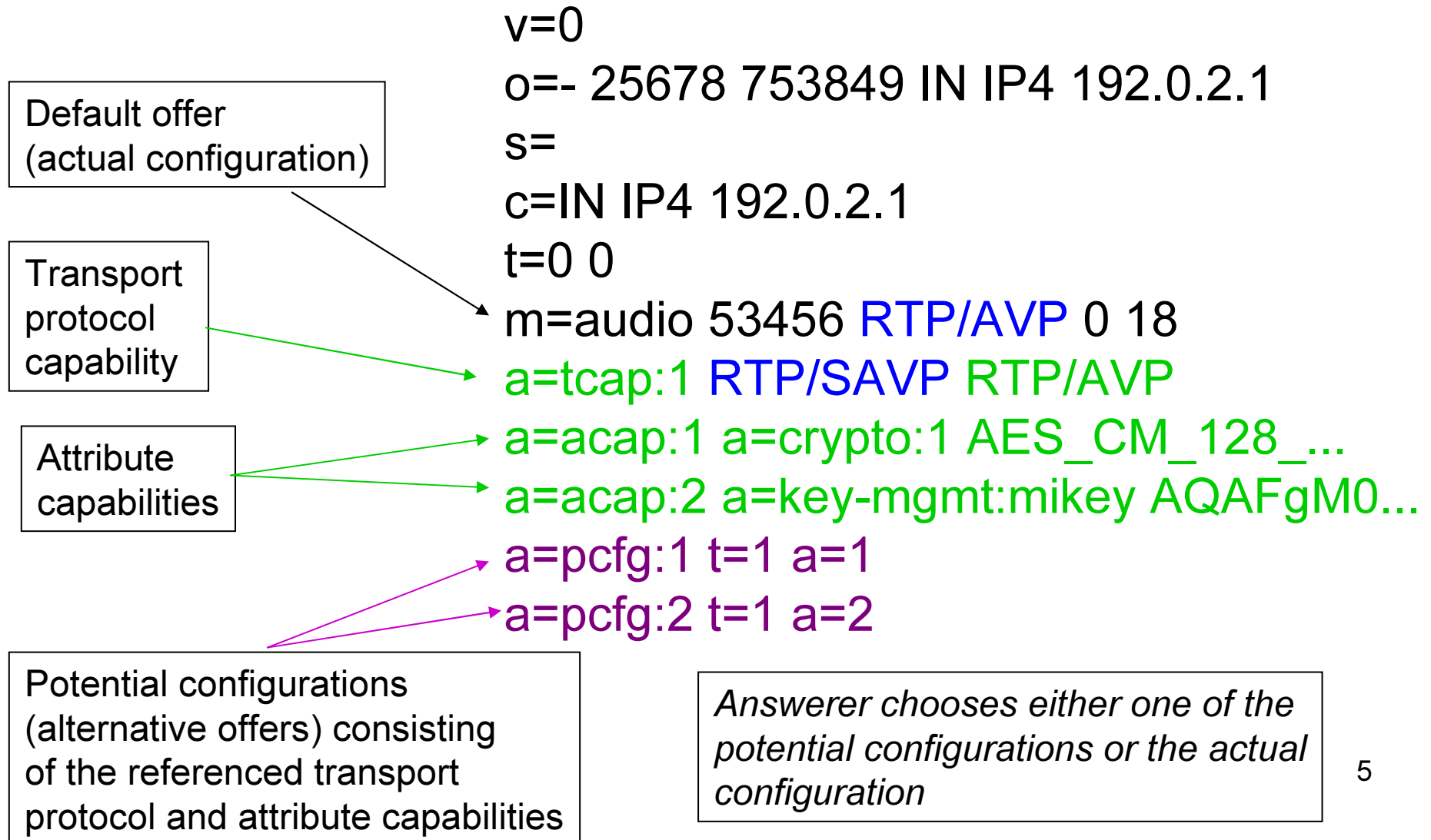   - Solution document: Based on requirements document

Documents

- Requirements
  - draft-ietf-mmusic-sdp-capability-negotiation-reqts-01.txt
  - Main guiding principles
    - Provide a general purpose capability negotiation mechanism
    - Avoid undue complexity or scope creep for people that need only negotiation of transport protocols and associated attributes
      - [DTLS-][SZ]RTP/[S]AVP[F] crowd for example
  - Requirements divided into
    - Core: All implementations must support
    - Extensions: Optional to implement
- Ended up with two solution documents per the above
  - SDP Capability Negotiation
    - draft-ietf-mmusic-sdp-capability-negotiation-05.txt
    - Core solution document for transport protocols and attributes
      - Best-effort SRTP for example
  - SDP Media Capabilities Negotiation:
    - draft-ietf-mmusic-sdp-media-capabilities-01.txt
    - Extension for media capabilities

SDP Capability Negotiation (Core)

- Provides two things
  - Backwards compatible capability negotiation for transport protocols and attributes
    - RTP, SRTP, DTLS-SRTP, ZRTP with different profiles (e.g. feedback-based or not – AVP or AVPF), etc.
    - Associated attributes such as "a=crypto", "a=key-mgmt", "a=fingerprint", "a=zrtp-zid", "a=rtcp-fb", etc.
  - Extensibility mechanisms to enable capability negotiation for other things
    - Media capabilities for example
      - See draft-ietf-mmusic-sdp-media-capabilities-01.txt

Example SDP for Best-Effort SRTP

Default offer
(actual configuration)

Transport
protocol
capability

Attribute
capabilities

Potential configurations
(alternative offers) consisting
of the referenced transport
protocol and attribute capabilities

v=0
o=- 25678 753849 IN IP4 192.0.2.1
s=
c=IN IP4 192.0.2.1
t=0 0
m=audio 53456 RTP/AVP 0 18
a=tcap:1 RTP/SAVP RTP/AVP
a=acap:1 a=crypto:1 AES_CM_128_...
a=acap:2 a=key-mgmt:mikey AQAFgM0...
a=pcfg:1 t=1 a=1
a=pcfg:2 t=1 a=2

Answerer chooses either one of the potential configurations or the actual configuration

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Status of Core Document

- Have uncovered and addressed a lot of issues since last IETF
  - On 6th iteration of document since last time
  - Believe we have a reasonably mature solution document at this time
- Goal is to issue WGLC shortly after Prague
  - We'll know better after MMUSIC ☺