#### **BUNDLE**

CHRISTER HOLMBERG HARALD ALVESTRAND CULLEN JENNINGS

IETF#89

London, U.K.

#### (2) PREVIOUS DECISIONS

- Q6: Do we allow a shared address in an Offer, before the Answerer has indicated BUNDLE support in an Answer (associated with the dialog)?
  - **DECISION**: NO
- Q8: How do we ensure, before the Answerer has indicated BUNDLE support, that a 'bundle-only' m- line is only accepted if the Answerer supports BUNDLE?
  - DECISION: Use a zero port value

### (3) QUESTIONS FOR TODAY

- Q9: What are the criteria for allowing usage of the same PT value within multiple m- lines?
- Q13: How can we ensure a receiver will be able to associate received media packets, using the same PT value, with the correct mline?
- Q12: Scope of non-RTP media de-mux procedures in BUNDLE?

# (4) Q9

Q9: What are the criteria for allowing usage of the same PT value within multiple m- lines?

#### SUGGESTION:

- Codecs using the identical PT value MUST have an identical "codec configuration"
  - "Two media codecs have the same configuration if they have the same media type (the <media> value in the SDP "m=" line), subtype (the <payload type> value in the SDP "a=rtpmap:" line), and parameters. The parameters that need to be considered are the format specific parameters for the codec in the SDP "a=fmtp:" line, along with any other SDP parameters that can affect the codec configuration and packetisation." (Colin Perkins)
  - draft-ietf-mmusic-sdp-mux-attributes will provide details on which SDP attribute values must be identical

### (5) Q13

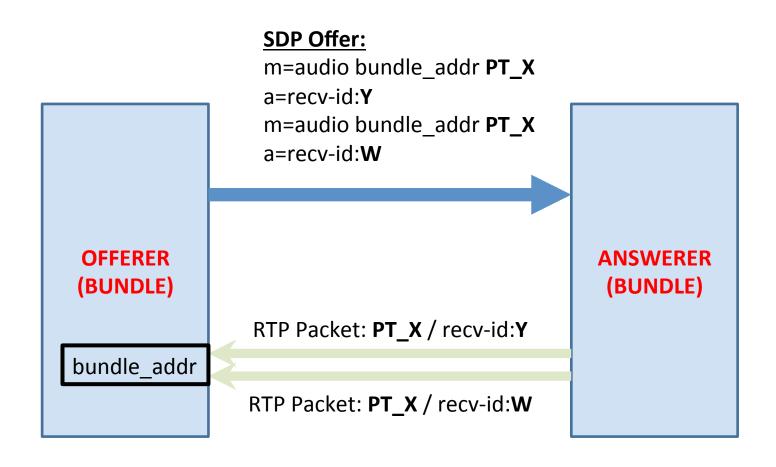
 Q13: How can we ensure a receiver will be able to associate received media packets, using the same PT value, with the correct m- line?

#### SUGGESTION:

- Define a "receiver-id" value
  - Inserted in SDP by the entity (X) that wants to receive media using the same PT value.
  - Remote peer inserts the value in the RTP packets sent towards X.
  - MUST be supported by BUNDLE entities
    - Fallback to non-BUNDLE if an entity does not want to use

NOTE: The suggestion is NOT to agree on the mechanism for implementing the receiver-id today. Will be discussed on the list.

# (6) Q13 (Example)



## (7) Q12

 Q12: Scope of non-RTP media de-mux procedures in BUNDLE?

#### SUGGESTION:

1) For STUN/DTLS/SRTP de-multiplexing, add reference to RFC 5764 (DTLS for SRTP keys), which specifies using value of the first byte of receive packet:

0 or 1: STUN

128-191: SRTP (or RTCP, if rtcp-mux)

20-63: DTLS

2) For other media types, indicate that procedures for indicating support of, and perform, de-multiplexing needs to be available

NOTE: The suggestion does NOT cover mechanism on how to de-mux different Protocols running on top of DTLS – only how to de-mux DTLS from STUN/SRTP.

## (8) NEXT STEPS

- IMPLEMENT DECISIONS MADE AT IETF#89
- STILL SOME EDITORIAL WORK TO DO
- BUNDLE WGLC AROUND IETF#90

#### THE END

# THANK YOU FOR LISTENING!