# New Revision of the Interactive Connectivity Establishment (ICE)

draft-ietf-mmusic-rfc5245bis-02 draft-ietf-mmusic-ice-sip-sdp-03

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#### Updates since -01

- Connectivity check pacing negotiation
- extension-att-name and -value to use token and \*VCHAR instead of byte-strings
- Allowing to use invalid (all-zeros) address and zero port for related address of TURN candidates for privacy reasons
- Clarifying use of candidate priorities when using multiple TURN servers

# Connectivity Check (STUN transaction) Pacing

- (still) need to update pacing value for non-RTP traffic
  - Currently: 500 ms
  - Decided: the choice needs to be measurement driven
- Do we have new information?

## ICE Restart (without SIP)

- MUST change ice-pwd and ice-ufrag when doing ICE restart
  - Proposal: should be part of base RFC, i.e., applies to non-SIP cases too

# ICE Restart (without SIP)

- Does the "MUST restart guidance" apply more generally?
  - Is restart always required when "changing the target of the media stream or the implementation level [full/lite]"?
- Proposal: not MUST but requirement for usage documents to define when restart is needed
  - with default of doing like with SIP?

#### Choosing default candidates

- Current text: "It is RECOMMENDED that default candidates be chosen based on the likelihood of those candidates to work with the peer that is being contacted."
  - text continues with recommending relayed,
     reflexive and finally host as the default
- Proposal: add "even if ICE is not being used" to the end of the sentence

#### Seriously-USE-CANDIDATE

- With aggressive nomination, USE-CANDIDATE is sent in all checks
- Need possibility to tell "I'm really done" with aggressive nomination?
  - Know when it's safe to release resources
  - Which candidate pair to use
- If yes, how?
  - New comprehension-optional STUN attribute?

## Unexpected ICE (SDP) answer

- B2BUA and 3PCC can cause SDP answer for a call where ICE was used to not contain ICE candidates/pwd/ufrag
  - e.g., setting call on hold and providing music on hold from a media server via an ICEunaware B2BUA
- Proposal: add guidance on ICE SIP draft how to react
  - ICE restart(s) needed?

# Choosing Component ID

- With RTP/RTCP: 1 and 2
- No guidance for non-RTP protocols
- Proposal:
  - if only one component, MUST use 1
  - otherwise usage document should give guidance
  - (seems we need a specific section for usage document requirements)

#### Offer/Answer terminology

- ICE-bis no longer bound to SDP o/a
- Proposal
  - "ICE offer" & "ICE answer"
  - Clarify in the terminology that it is not (necessarily) the same as SDP o/a
  - Update draft title: "Interactive Connectivity
     Establishment (ICE): A Protocol for Network
     Address Translator (NAT) Traversal for Offer/

     Answer Protocols"

#### **Updated Offer with SIP**

- When ICE is finished, send new SDP offer/ answer with the selected candidates?
  - Currently: only if different from default (i.e., the one in SDP m- and c-lines)
- Proposal: configurable with default yes
  - ice-option-optional: no-updated-offer for controlled agent
  - More consistent behavior for middle boxes
  - Done almost always anyway
  - However, issues with 3<sup>rd</sup> Party Call Control and fax (draft-elwell-ice-updated-offer)