Update on Candidate Address Selection for Interactive Connectivity Establishment (ICE)

draft-keranen-mmusic-ice-address-selection-00

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Background

• Only little guidance in RFC5245 (ICE) on how to handle different kind of IPv6 addresses
  – Link-local addresses, ULAs, etc.
  – DISCUSS in the IESG review of the ICE TCP draft (but not a TCP-specific problem -> new draft)

• Not all combinations make sense as candidate address pairs
  – Example: link-local with global
Proposal for IPv6 candidates

• Use revised RFC 3484 rules for priorities
• MUST NOT use the deprecated IPv4-compatible IPv6 addresses or IPv6 site-local unicast addresses
• Candidates from link-local addresses MUST be combined only with other link-local candidates
  – Same with ULAs
• IPv4-mapped IPv6 addresses MUST NOT be included in the offered candidates unless the application using ICE does not support IPv4
Proposal for IPv4 and IPv6

• Addresses from a loopback interface MUST NOT be included in the candidate addresses

• Local relayed candidates MUST NOT be combined with remote host candidates from IPv4 private address or IPv6 link-local addresses or ULAs
Negotiation

• Both endpoints should use same method for matching and prioritizing
• New ICE SDP option tag: rfcXXXX-candidates
• If both endpoints don’t support this extension: SHOULD NOT use the new rules
Next steps

• Makes sense?
• Something missing?
• Reviews & comments