



Shaved ICE

Leaner and tastier

Motivation

- We discussed having an ice-option for passive-aggressive nomination
- We previously discussed having an ice-option for M-I-SHA-256
- Peter's preso suggested that we might want to reduce ICE packet size
- Hmm...

Proposal: ICE2 ice-option

- Negotiates
 - Use of passive-aggressive nomination
 - Smaller ICE packets
(not 5245-compliant, but still 5389-compliant)
 - M-I-SHA-256 (although this could still be separate)

ICE packet size (now)

- IP (20) + UDP (8) + STUN (20) = 48
- USERNAME (16: "lfrg:rfrg" + pad)
- M-I (24: 20 byte MAC)
- ICE-CONTROLLING (12: 64-bit tiebreaker)
- FINGERPRINT (8)
- PRIORITY (8)
- **Total: 116 (93 kbps@100Hz)**

ICE packet size (possible)

- IP (20) + UDP (8) + STUN (20) = 48
- USERNAME (12: "lfrgrfrg" special case)
- M-I (12: truncate SHA-256 to 64 bits)
- ICE-CONTROLLING (4: use ufrag for tiebreak)
- FINGERPRINT (remove, not needed)
- PRIORITY (remove, not critical)
- **Total: 76 (61 kbps@100Hz, 35% reduction)**

ICE packet size (crazy)

- IP (20) + UDP (8) + STUN (20) = 48
- USERNAME-CONTROLLING (12: "lfrgrfrg")
 - combines USERNAME + ICE-CONTROLLING/CONTROLLED
- M-I (0: stuff 64-bit hash into transaction id)
- **Total: 60 (48kbps@100Hz, 48% reduction)**