ICE "Passive-Aggressive" Nomination

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Overview

Passive-Aggressive Nomination

- Slight tweak to regular nomination; deprecates aggressive nomination
- Can send media as soon as a single check succeeds (like aggressive)
- Controlling side has full discretion on which pair is used (*like regular*)
- Controlled side knows when nomination is complete (*like regular*)

Example

Alice	(host	only)	ľ	letwork	Bob	(host+relay)
Media starts at soon as a single check completes		_	(host->host)			I
	•		(host->host)	 st <		
			(host->relay)	I		
			(relay->host)	I		
			s (host->relay	7) 		 =====>
		-	(relay->host)	I		I I
			(host->relay)	I		 >
single USE-			s (relay->host	:) 		 =======
	(9)	STUN Req	(host->host)			i i
			[(host->host)	I		I
			ch (host->host	:) 		 =====>
	(12) STUN Req	(Bob host, US	E-CANDIDATE set)		Ì
			(Bob host)	I		1
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Backwards Compatible

- Legal regular nom behavior [RFC5245, p69]
- All ICE endpoints need to support regular nomination (e.g. ice-lite)
- Nonconformant endpoint behavior: no worse than regular nomination
 - i.e. media not sent/played out until USE-CANDIDATE

Proposal

- Codify this behavior into ICE-bis as the new way of doing regular nomination
- When controlling:
 - MUST use regular (passive-aggressive) nomination
 - MUST send media once a check succeeds
 - MUST NOT use aggressive nomination
- When controlled:
 - MUST send media once a check succeeds
 - MUST mirror media path chosen by controlling side (works for regular and aggressive peers)
- Suggest that we NOT negotiate this behavior; revisit if we find problems

Next Steps

- Conclusion from IETF 92 was that this looked promising
- Agreed to solicit alternate proposals and decide at IETF 93 how to proceed
- Here we are :-)