

# Renomination

draft-thatcher-ice-renomination

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# Problem

You can only nominate once.  
(modulo aggressive nomination)

If network conditions change, you can't nominate a new/better candidate pair without an ICE restart.

# Example: Continual Gathering

1. Nominate a pair using cellular.
2. When WiFi becomes available,  
Trickle a candidate using WiFi
3. Nominate a pair using WiFi

# Example: Backup candidate pairs

1. Nominate a pair using WiFi
2. Keep a pair using cellular alive in case WiFi dies
3. When WiFi goes away,  
Nominate the pair using cellular

# Example: Aggressive Nom

1. Nominate a pair using WiFi (high priority)
2. Nominate a pair using cellular (low priority)
3. If WiFi dies before ICE completes,  
You can't re-nominate cellular.

# Solution

Add integer value to USE\_CANDIDATE

Nominate many times. Largest value wins.

For example, if the controlling side sends this:

1. nominate pair X with USE\_CANDIDATE=1
2. nominate pair Y with USE\_CANDIDATE=2

And the controlled side receives this:

1. nominate pair Y with USE\_CANDIDATE=2
2. nominate pair X with USE\_CANDIDATE=1

The controlled side selects Y since  $2 > 1$ .

# Negotiation

New ice option: "renomination"

If the ice-option is present on the controlling side, the controlled side can nominate many times and add the integer value to USE\_CANDIDATE.