



draft-ietf-ice-rfc5245bis

IETF#96

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(2) AGENDA

- Buenos Aires decisions implemented
- Other changes since Buenos Aires
- Still to do
- Next steps

(3) BA decisions implemented

- Aggressive nomination:
 - Aggressive nomination removed
 - Draft now only talks about “nomination”
 - ICE agent must still be prepared that remote peer might use aggressive nomination

(4) BA decisions implemented

- Keep-alives:
 - Text about no-op removed
 - Associated draft won't progress
 - Text about non-ICE agents sending keep-alives removed

(5) BA decisions implemented

- Connectivity check pacing:
 - No separation between RTP and other traffic
 - Recommended value: 50 ms
 - Other values allowed
 - Min value: 5 ms

(6) Other changes since BA

- ICE restart & roles:
 - ICE restart does not by default redetermine of the ICE roles, unless:
 - Implementation role (full/lite) changes
 - Lite can only act as controlled
 - ICE restart causes role conflict
 - Might happen e.g. in certain 3PCC scenarios
 - General clarification of tie-breaker concept

(7) Other changes since BA

- Dual-stack fairness:
 - Reference to draft-dual-stack-fairness added
 - Thanks to Pål-Erik for pull request!

(8) Still to do

- Global pacing:
 - **ISSUE:**
 - Pacing impact of multiple ICE stack instances within a single endpoint
 - *Example: multiple browser tabs, each initiating an ICE stack instance*
 - draft-jennings-ice-rtcweb-timing-00
 - **QUESTION:**
 - Do we need to do anything in draft-ice-bis?
 - **SUGGESTION:**
 - Progress as separate deliverable

(9) Still to do

- Frozen candidates:
 - **ISSUE:**
 - It has been suggested that the concept of frozen candidates should be removed
 - Does not seem to be widely implemented
 - Not very useful for a low number of media streams
 - » BUNDLE will deal with a large number of media streams
 - Can anyway be done as an implementation-specific-non-standardized optimization
 - **QUESTION:**
 - Is there a big support for removal?
 - Should it be defined in a separate deliverable?
 - **SUGGESTION:**
 - Keep everything as it is

(10) Still to do

- Unfreezing checklist problem:
 - **ISSUE:**
 - Sections 5.7 and 7.1.3.2.3 specify that, in the case of a failing initial pair for a given foundation, all remaining pairs will remain frozen
 - Main purpose of freezing
 - Section 5.8 talks about unfreezing entire checklists as soon as the first candidate gets unfrozen.
 - **SUGGESTION:**
 - Remove conflicting text from section 5.8.

BUT....

(11) The Unfreezing Checklist Problem

		IPv4 host	IPv6 host	srfx	relayed
	Str.Cmp	Foundation	Foundation2	Foundation3	Foundation4
CheckList.1	Audio.1	192.168.0.1:5000	[2001:660::1]:5000	130.129.0.1:5000	
	Audio.2	192.168.0.1:5001	[2001:660::1]:5001	130.129.0.1:5001	
CheckList.2	Video.1	192.168.0.1:5002	[2001:660::1]:5002	130.129.0.1:5002	8.9.0.1:5002
	Video.2	192.168.0.1:5003	[2001:660::1]:5003	130.129.0.1:5003	8.9.0.1:5003

- Peter's problem: with the previous fix, the red candidates above will never be unfrozen
- Jonathan/Emil's suggestion: modify the initial unfreezing to start from the first pair in a column (and no longer the candidate in row 1 for that column)

(12) Starting Checks and Unfreezing Pairs in Vanilla ICE

(Emil's proposed new approach to explaining unfreezing in 5245bis)

		IPv4 host	IPv6 host	srflex	relayed
	Str.Cmp	Foundation1	Foundation2	Foundation3	Foundation4
CheckList.1	Audio.1	192.168.0.1:5000	[2001:660::1]:5000	130.129.0.1:5000	8.9.0.1:5000
	Audio.2	192.168.0.1:5001	[2001:660::1]:5001	130.129.0.1:5001	8.9.0.1:5001
CheckList.2	Video.1	192.168.0.1:5002	[2001:660::1]:5002	130.129.0.1:5002	8.9.0.1:5002
	Video.2	192.168.0.1:5003	[2001:660::1]:5003	130.129.0.1:5003	8.9.0.1:5003

For simplicity, imagine that:

- candidates with an IPv4 foundation are all paired to 1.1.1.1
- candidates with an IPv6 foundation are all paired to 2001:999::1
- both sides use the same port numbers per components.

(13) Starting Checks and Unfreezing Pairs in Vanilla ICE

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	Video.2	192.168.0.1:5003	[2001:660::1]:5003	130.129.0.1:5003	8.9.0.1:5003

[RFC5245] says that by default everything is Frozen and then:

The agent examines the check list for the first media stream.
For that media stream:

* For all pairs with the same foundation, it sets the state of the pair with the lowest component ID to Waiting.

(14) Starting Checks and Unfreezing Pairs in Vanilla ICE

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1. The agent changes the states for all other Frozen pairs for the same media stream and same foundation to Waiting.

(15) Starting Checks and Unfreezing Pairs in Vanilla ICE

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2. If there is a pair in the valid list for every component of this media stream. The agent examines the check list for each other media stream in turn :

* the state of all pairs in the check list whose foundation matches a pair in the valid list under consideration is set to Waiting

(17) NEXT STEPS

- Submit new version of draft-5245bis
- WGLC?

If you came here just to look for Pokemons...



ICE-type Pokemon