

Happy Eyeballs Extension for Multiple Interfaces

draft-ietf-mif-happy-eyeballs-extension-00

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Status

- Accepted as WG Document in IETF 83 Paris
- Posted as WG Document July 2012
- Changes made moving to version -00
 - Enumerate several use cases
 - Update texts to HE-MIF parameters
 - Elaborate the HE-MIF behavior



Happiness Parameters

Hard

- **User preferences**
 - No 3G while roaming
 - Only use free WiFi
- **Operator policies**
 - No 2.484GHz WiFi (channel 14)
 - 3GPP ANDSF

Soft

- **DNS selection**
 - I-D.ietf-mif-dns-server-selection, otherwise sending out in parallel
- **Next Hop**
 - RFC4191 or draft-ietf-mif-dhcpv6-route-option
- **Source address selection**
 - RFC3484

HE Behavior in MIF

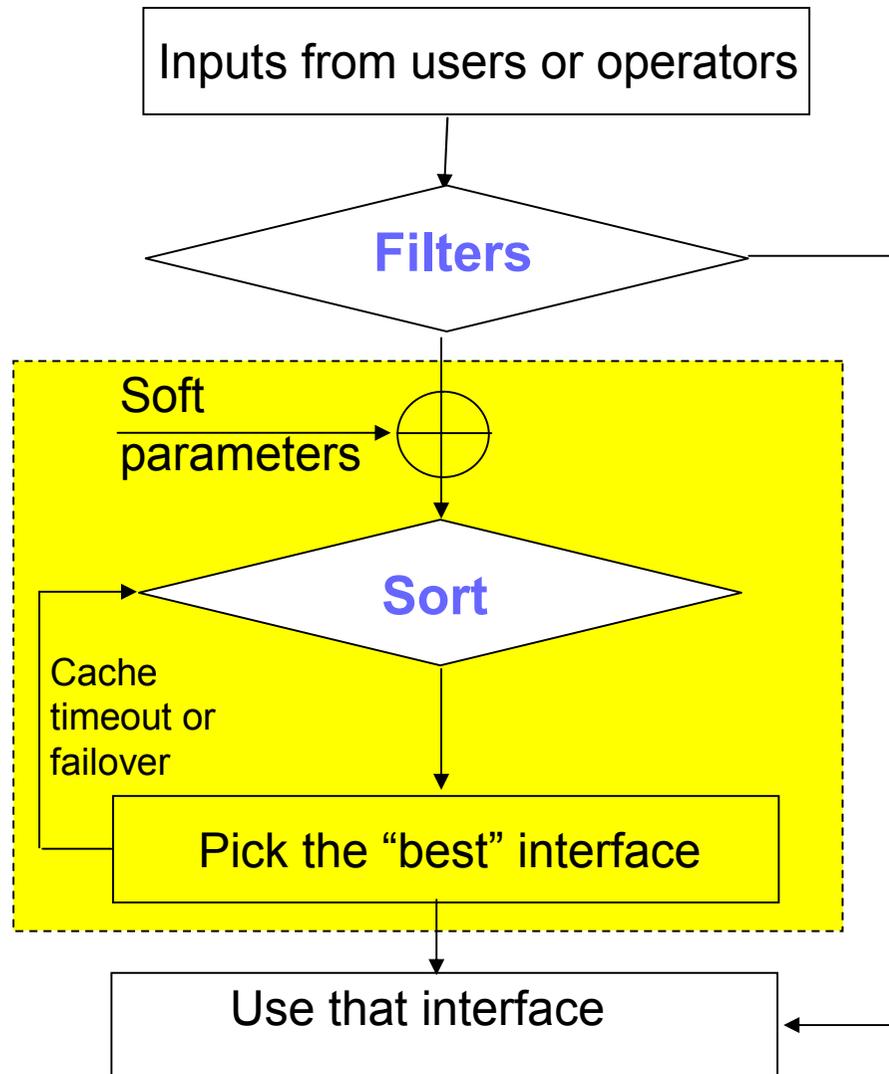
Step 1: Filter

- Take user input as first
- Filter unqualified interfaces
- candidate interfaces to Step 2

Step 2: Sort

- DNS processing
 - I-D.ietf-mif-dns-server-selection, otherwise sending out on multiple ints in parallel
- Data plan processing
 - A particular int matching soft condition take in advance
 - If failover, connection attempts would take place in parallel on rest of ints
 - Cache implementation is suggested to be compliant with RFC6555

Implementation



- The algorithm could be implemented as high-level API linking to MIF-API

Only one interface is left

Open issue: fallback timeout

- When preferred interface connection times out, HE-MIF connects using other candidate interfaces in parallel (“Happy Eyeballs”)
- The fallback timeout could be decided through
 - User input (shake phone, press button)
 - ICMP error
 - System default value: 75 seconds is a common practice
- To WG: 75 seconds is unacceptable. How aggressive should we time out?

What's Next?

- Comments, flames, suggestions, offers of help?