

# A feed-back on Telenet Mobile IPv6 FUT

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# Background

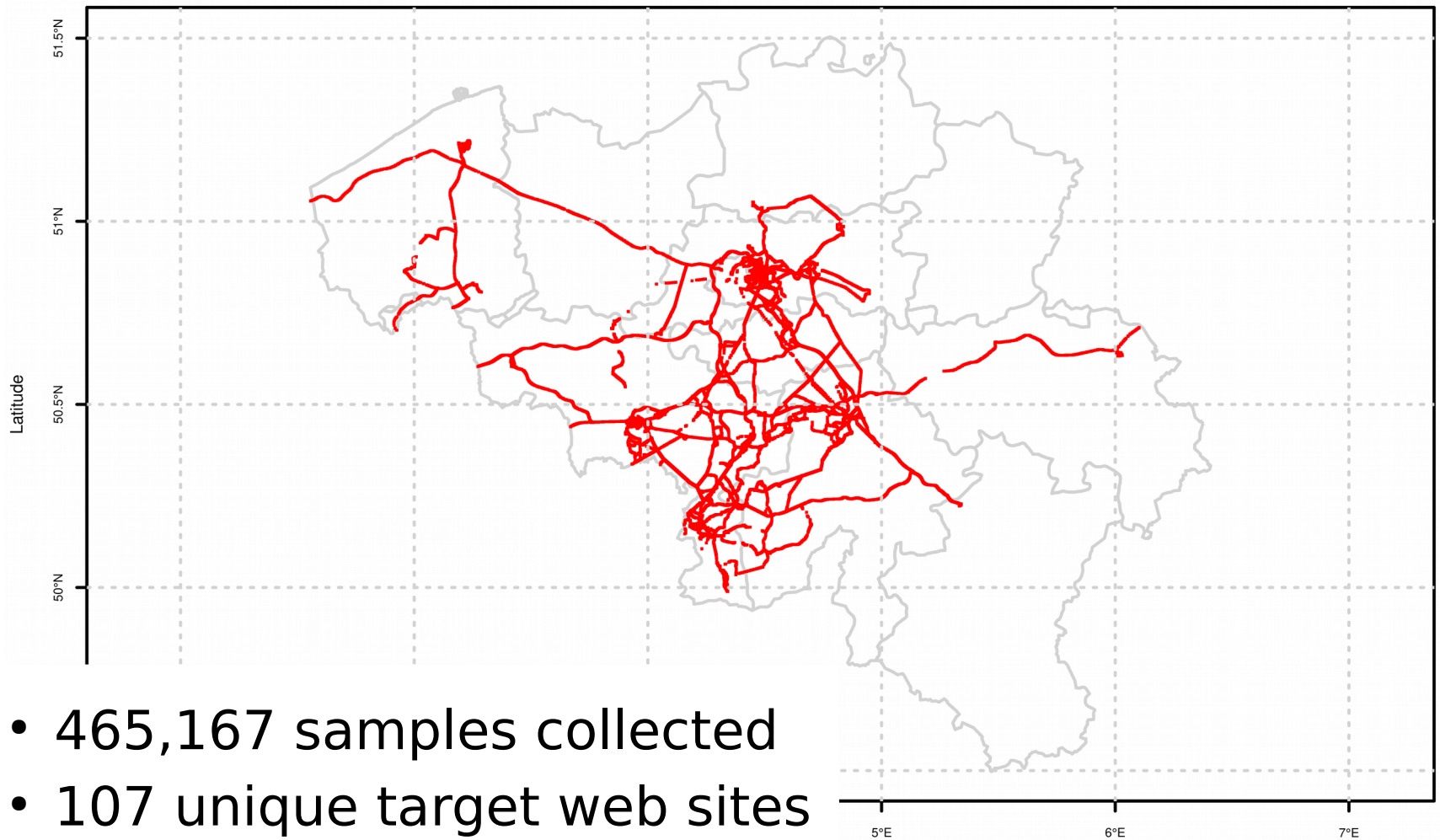
- On September 30, 2015, Telenet started a Friendly User Test (FUT) of IPv6 on smartphones
- From September 30, 2015 to May 19, 2018, web experience has been investigated

# Methodology



- Three Jolla devices > concern : device dependency of results
- Running SailFishOS
- GPS tracking enabled
- Shell script
  - First retrieves Alexa Top 50 for Belgium
  - Randomly picks one target web site
  - Initiates a web request with **curl**
  - Repeats three times
  - Loops until experimenter ends

# Statistics



- 465,167 samples collected
- 107 unique target web sites
- Mostly in Wallonia

# Native IPv6 vs. NAT64

- **Native IPv6**

```
06/05/2018-09:06:26; 50.1679;  
4.18146;1;53a68de7d615cad2187243ce132c5a0c;425800;lte  
;;206;20;Telenet;38;38;38;0.000122;0.807439;0.001281;  
0.000122;0.072487;0.934224;2a02:1808:17f:9fe9:90b7:1d  
a9:6fcb:f4e6;58599;2a02:1800:100:6000::b;443;342;1274  
;29644;29644.000;https://www2.telenet.be/nl
```

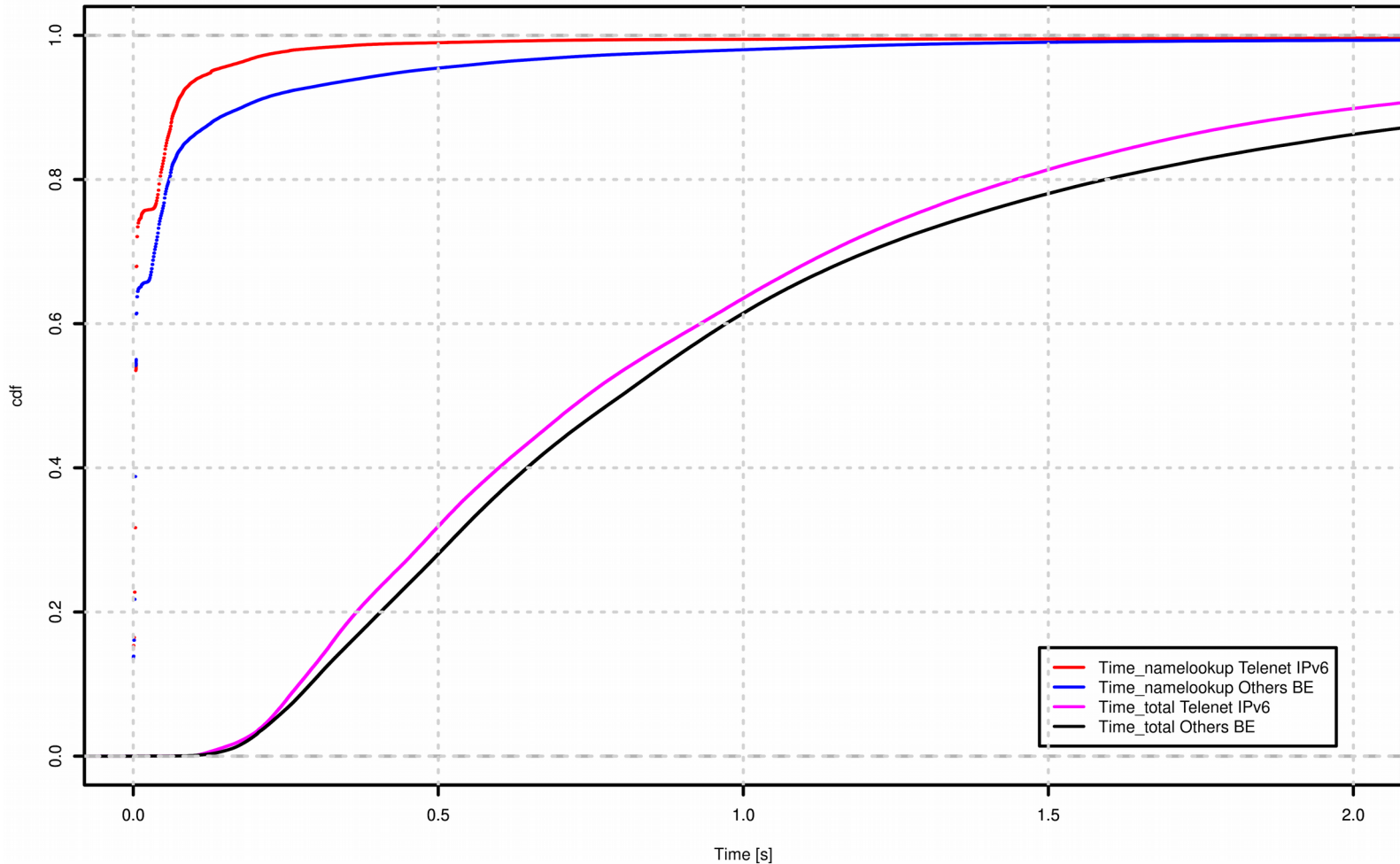
- **NAT64**

```
06/05/2018-09:16:48; 50.1679;  
4.18148;1;53a68de7d615cad2187243ce132c5a0c;425800;lte  
;;206;20;Telenet;38;38;38;0.004394;0.241294;0.298443;  
0.058920;0.432958;0.742840;2a02:1808:17f:9fe9:90b7:1d  
a9:6fcb:f4e6;55576;64:ff9b::5ff:9c51;443;226;1286;21451  
;21451.000;https://www.2dehands.be/
```

# Overall performance

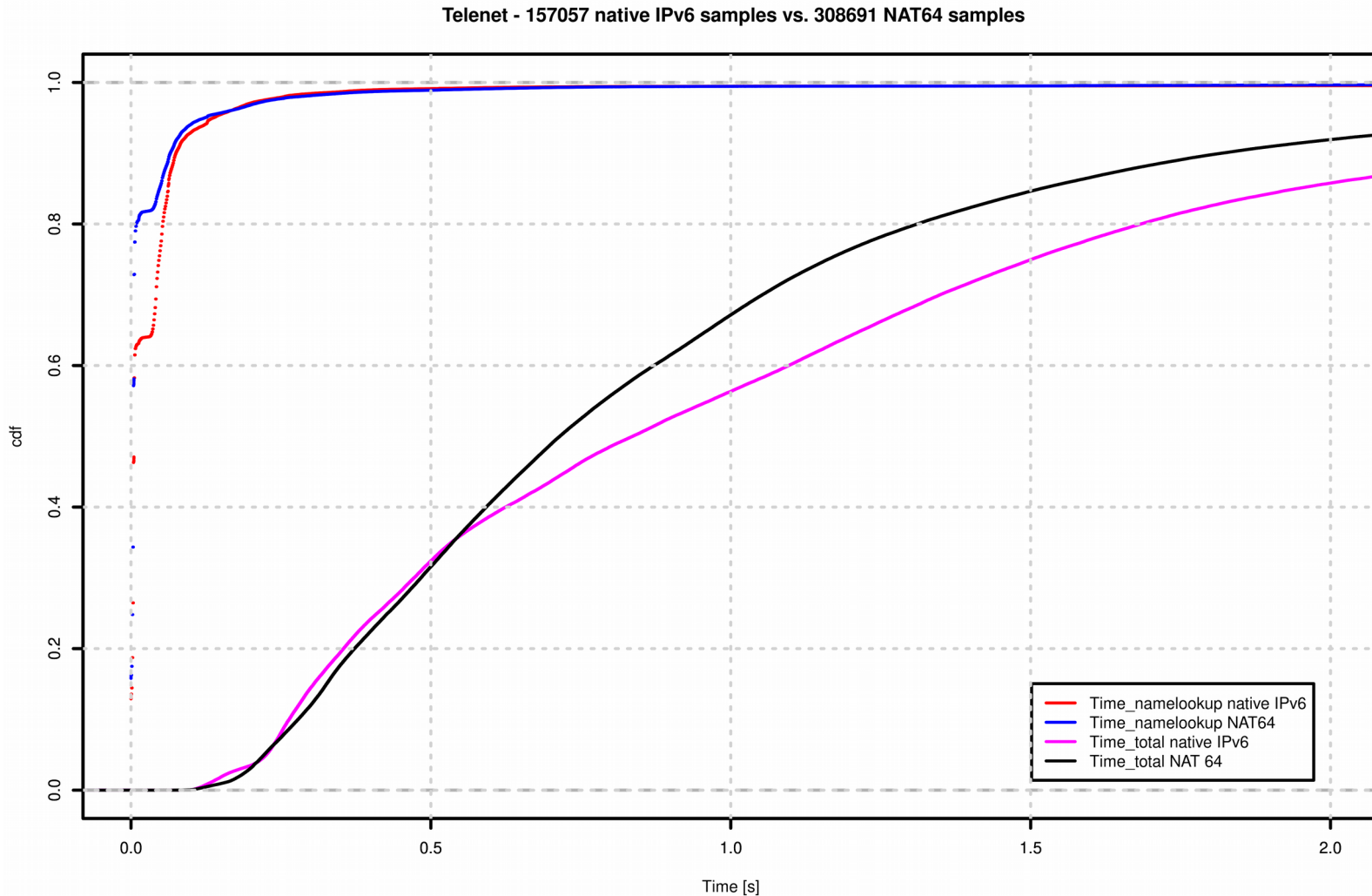
## No significant difference in QoE

465167 Telenet IPv6 samples vs. 1512060 Others BE IPv4 samples



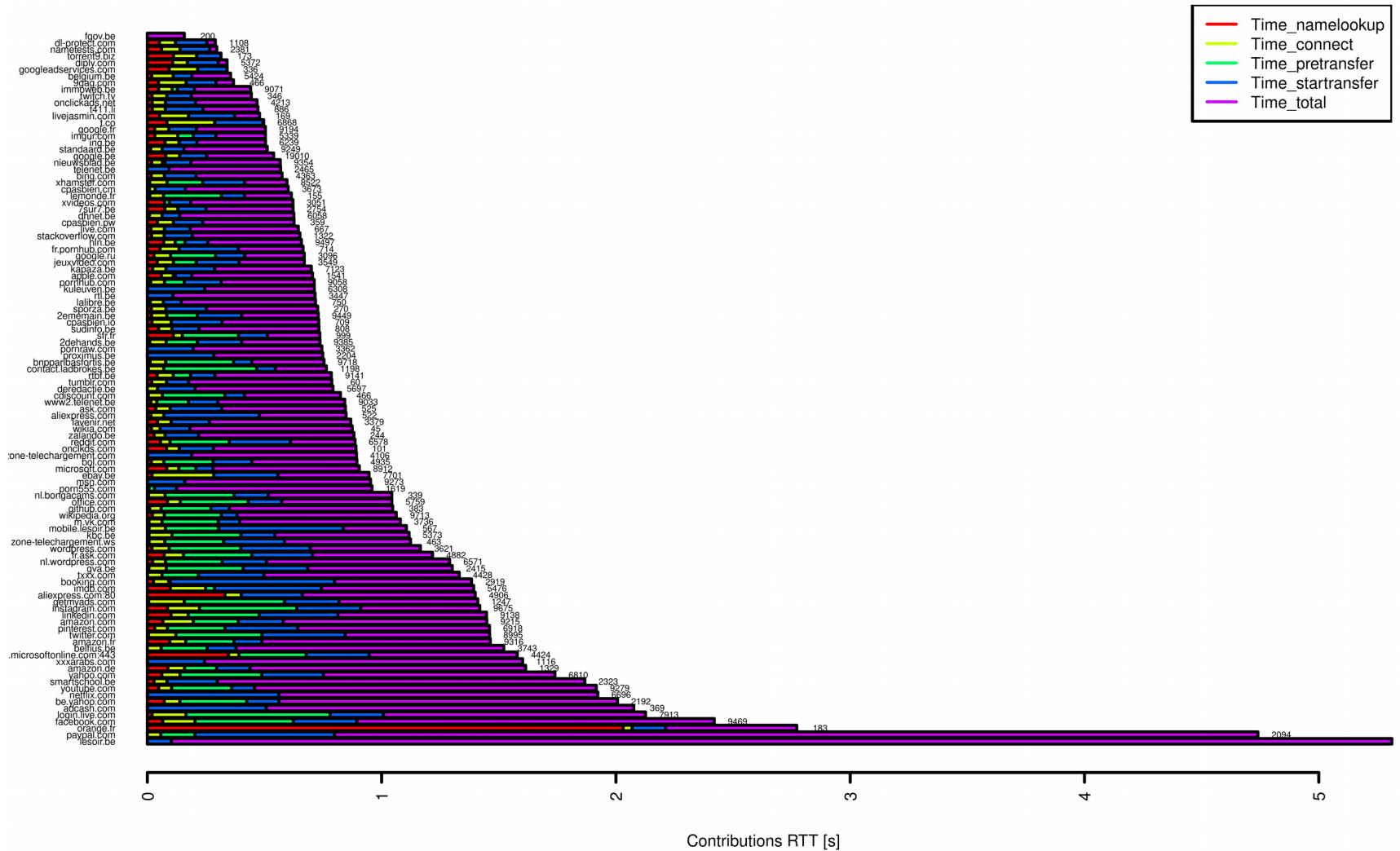
# NAT64 performance

## No significant difference in QoE



# PLT Alexa

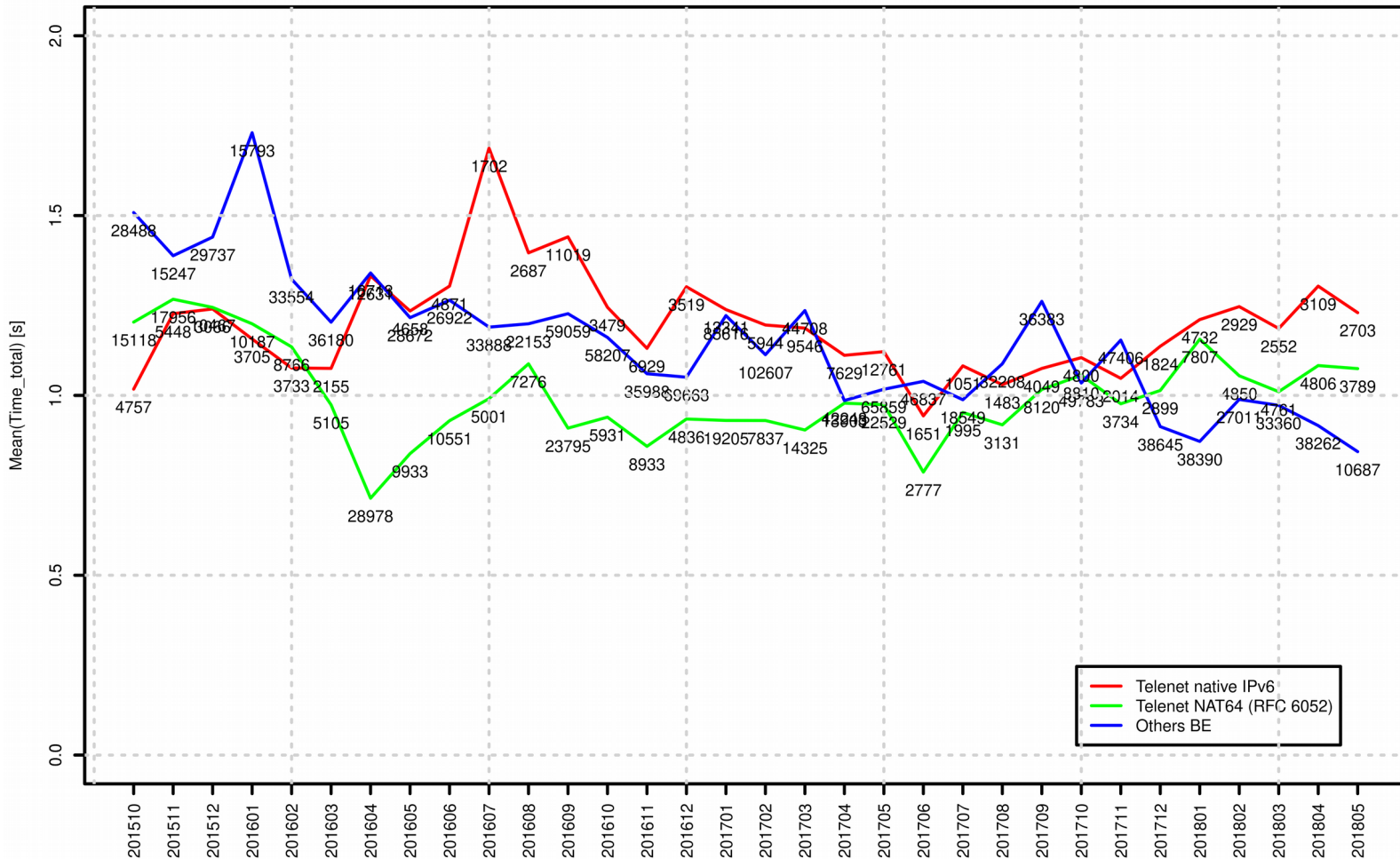
## 107 unique web sites (Latency < 10s)





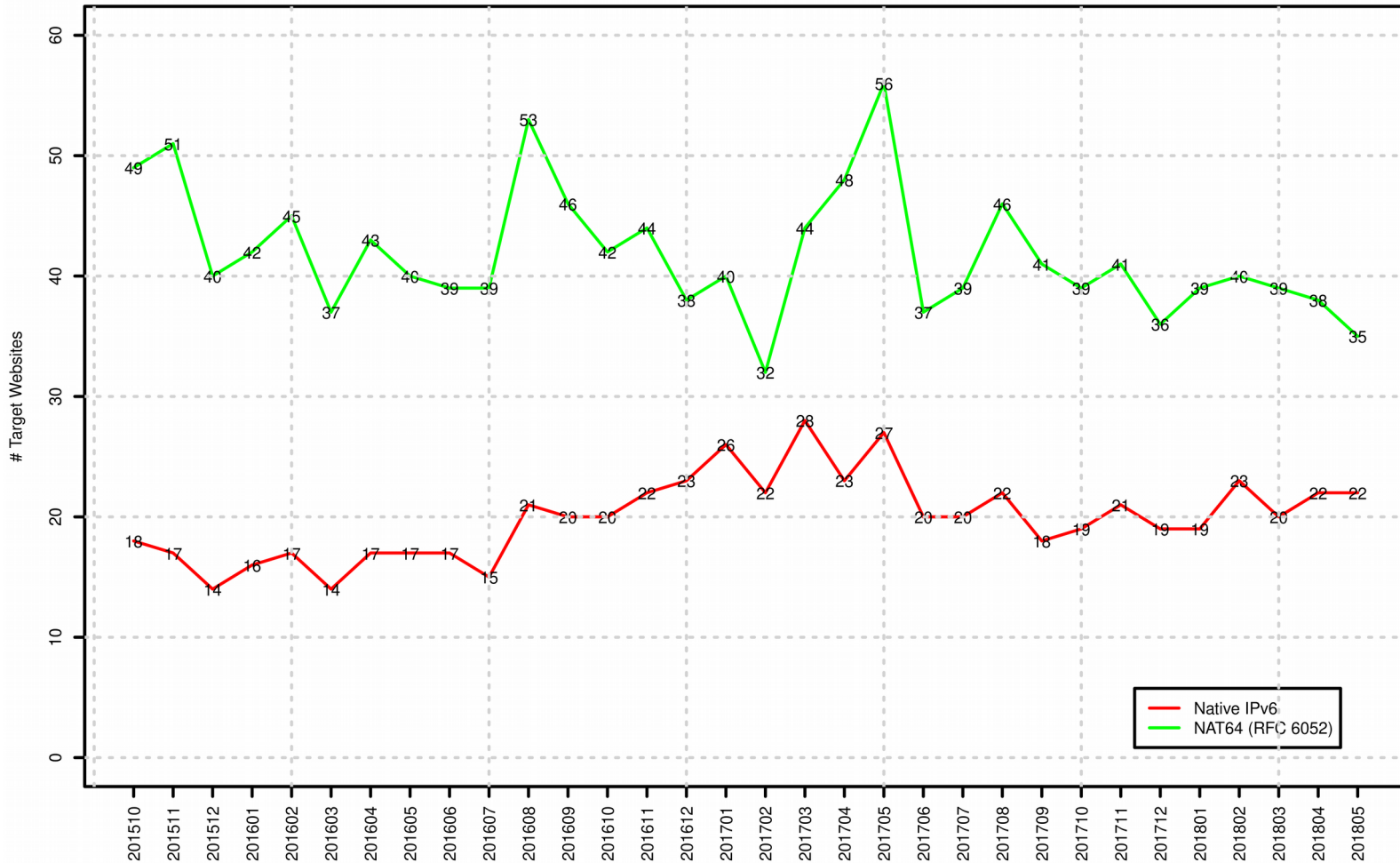
# Thirty-month evolution (1/2)

No statistically significant trend in average PLT



# Thirty-month evolution (2/2)

No statistically significant trend in IPv6 share



# Conclusion

- Provision : a single point-of-view on Telenet IPv6 FUT
- Under that provision, when a user requests a web sites in IPv6
  - No difference in PLT
  - No penalty for NAT64
- Comments, suggestions welcome