the open Net
s i n e   q u a   n o n

Russian Internet Measurements Hackathons

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Why?

- have fun
- engage community
- study our local Internet Infrastructure

Hackathons

First - 27-28 august 2016

Second - 11-12 February 2017

Third - 20-21 May 2017

Organizational

- by volunteers
- at community center ("[Boiling Point](#)" state-run coworking)
- water coffee/tea and stroopwaffles
- budget:
  first - 50 euro
  second - 30 euro (we became more professional!)

First hackathon results

- 30 registrations
- 2,5 projects survived:
    - "Critical Infrastructure of Russian Internet analysis based on European approach"
    - "Routing and data plane comparasion at the border of Russia"
    - "Russian Open Data and RIPE NCC"

Critical Infrastructure of Russian Internet analysis based on European approach

- non-programming task

Резюме исследования (I)

- **В международной практике нет единого подхода к регулированию КИИ и единое понимание того, как соотносятся с КИИ сервисы и инфраструктура Интернета.**

- **Нет универсальной методологии, таксономии и системы критериев для категорирования и классификации КИИ**

- **Классификация существующих подходов:**

1. (Япония, США и проч.) Объект регулирования - ИТ-инфраструктура КВО, категорирования и таксономии является производной по отношению к КВО. Интернет и сервисы ИТ-отрасли, не выделяются в отдельный сектор КВО.

2. (РФ) КИИ = отдельная категория объектов регулирования, но по системе критериев и таксономии производна по отношению к КВО. В ряде случаев понятие КИИ привязывается к АСУ ПТП КВО. Интернет + другие сети

Эволюция постановки задачи

- Мы измеряем количество трансграничных переходов

- Мы измеряем количество физических каналов на трансграничных переходах

- Мы сравниваем теоретические данные ОЗИ и эмпирические данные Атласа

Routing and data plane comparasion at the border of Russia

- studying routing and data plane correlation on Russian "borders". At the moment of hackathon it was discovered that over 95% of traces vs bgp paths do not correlate.
- as post-hackathon study shown modern IXP interference.

Second hackathon results

- 40 registrations
- 2,5 projects survived:
    - "IPv4 space in reserve in Russia" (¾ of /8)
    - "Distribution of announcements of IP space" (actually became "Geolocation Quality is poor")
    - "Verifying Ripe Atlas probe geolocation by analysis of RTT to neighbour probes" (and discovered bug in Atlas API)

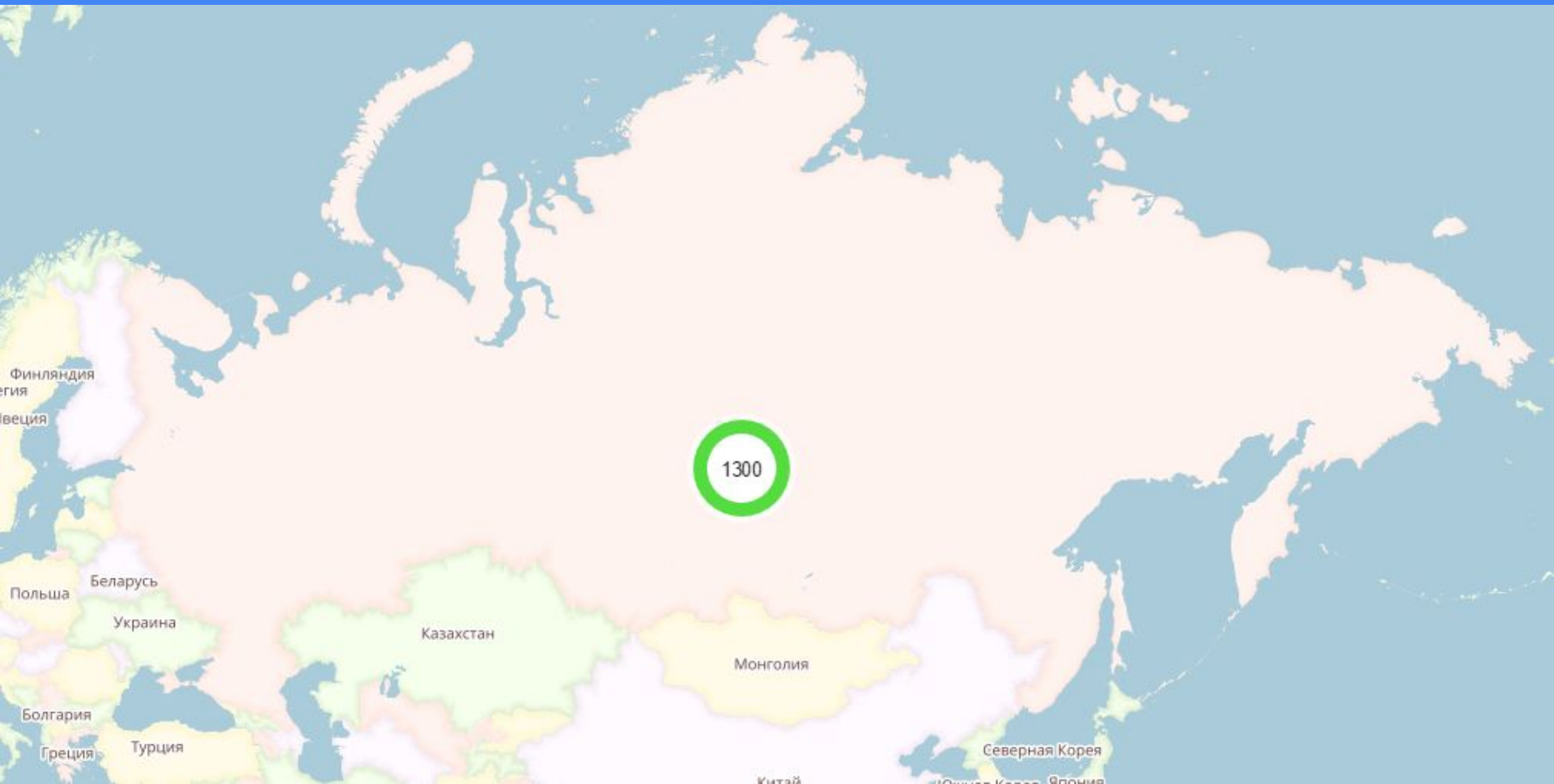# Distribution of announcements of IP space" (actually became "Geolocation Quality is poor")

Based on RIPE Stat

- some geolocations are funny
- many prefixes registered inside country are announced outside
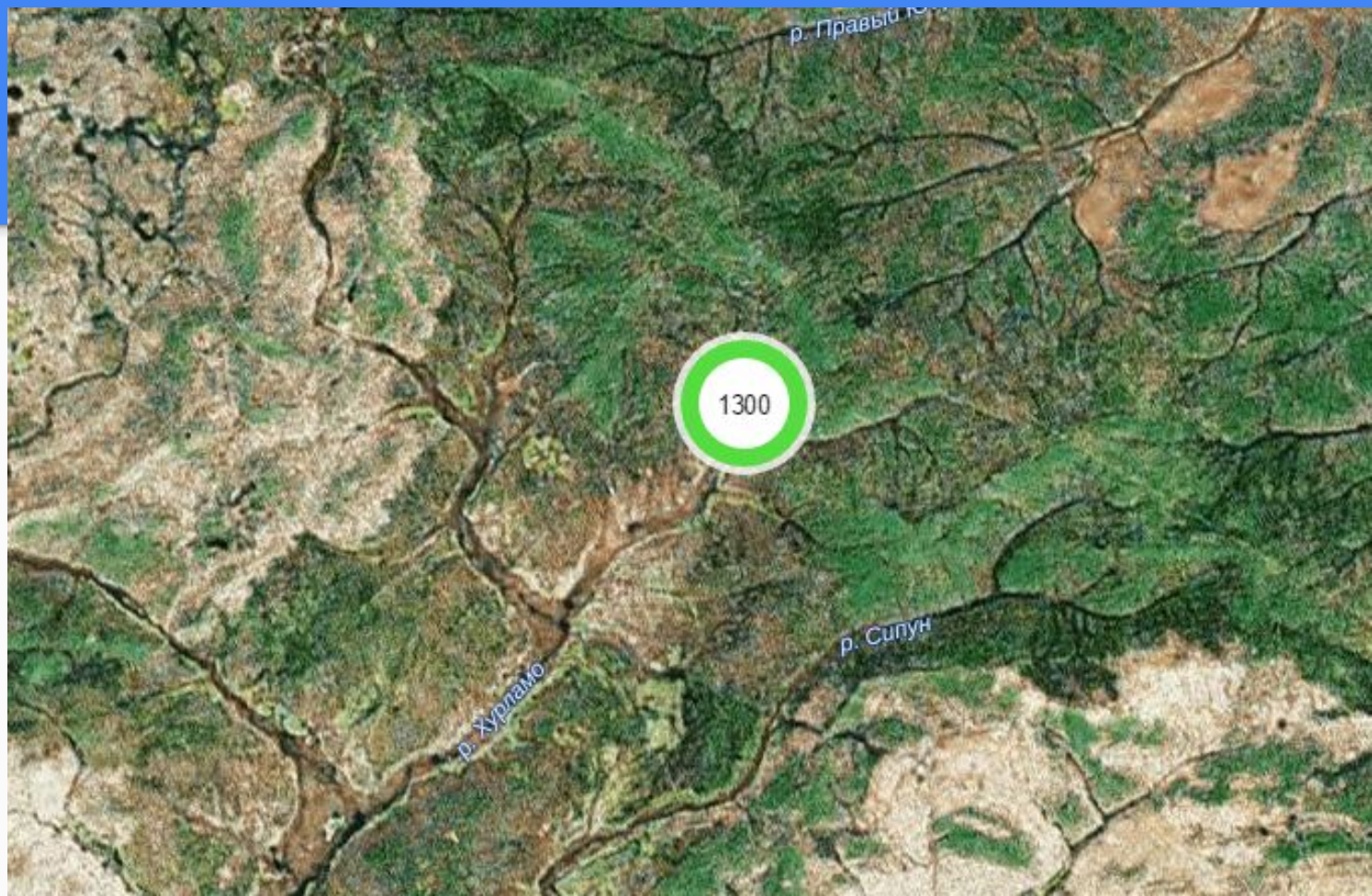- IPv6 geolocation is not geolocation at all

RU v4
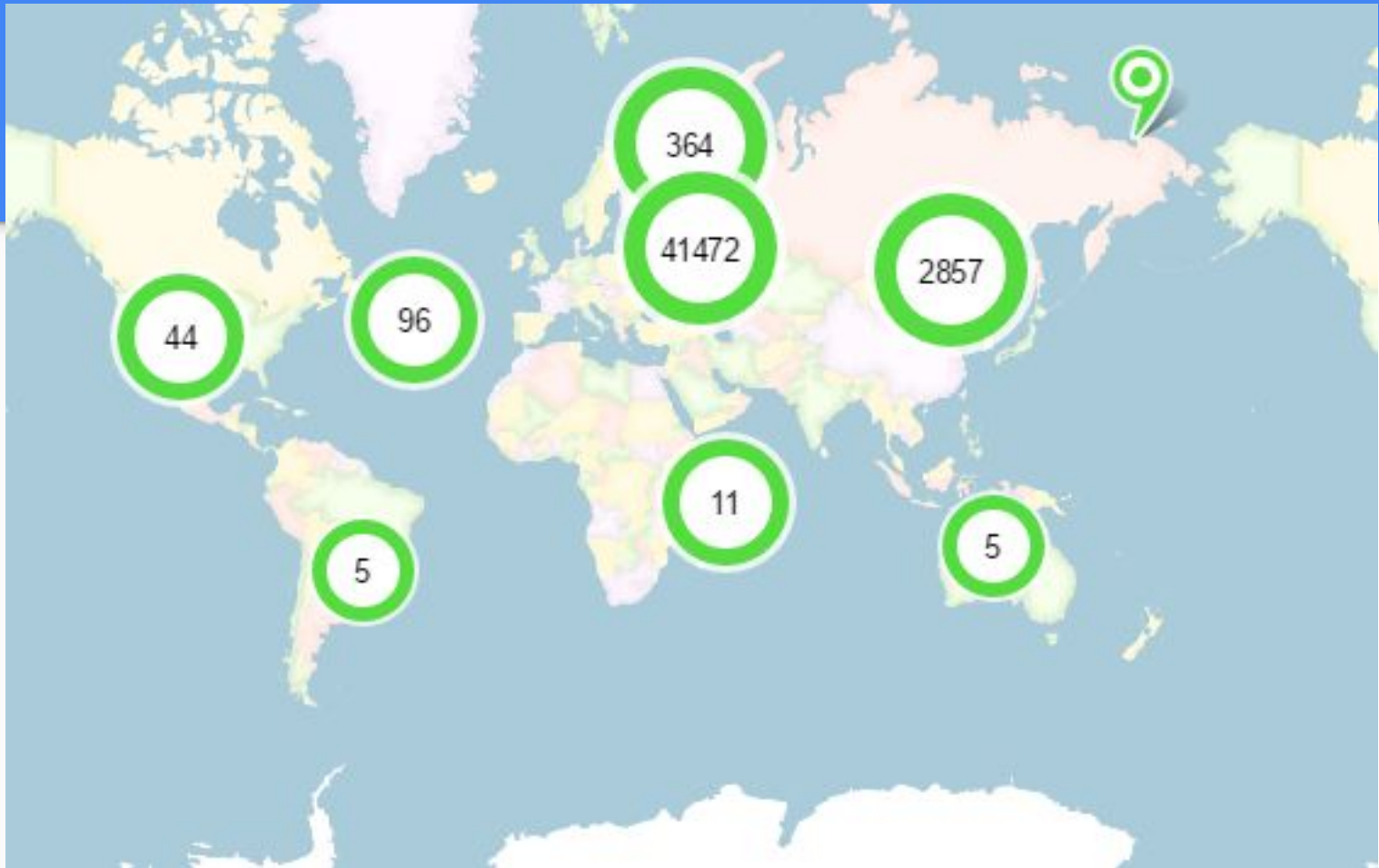
Verifying Ripe Atlas probe geolocation by analysis of RTT to neighbour probes

https://github.com/darkk/atls-hktn :
Original goal: measure latency between geographically close points and pinpoint abnormally high latencies (bad peering?) compared to speed of light in fiber.

The goal was shifted to replace active measurements with historical measurements analytics, modified goal was to find latency outliers between two geocoded endpoints, especially violations of speed of light (showing geocoding incorrectness).

From probe #13526
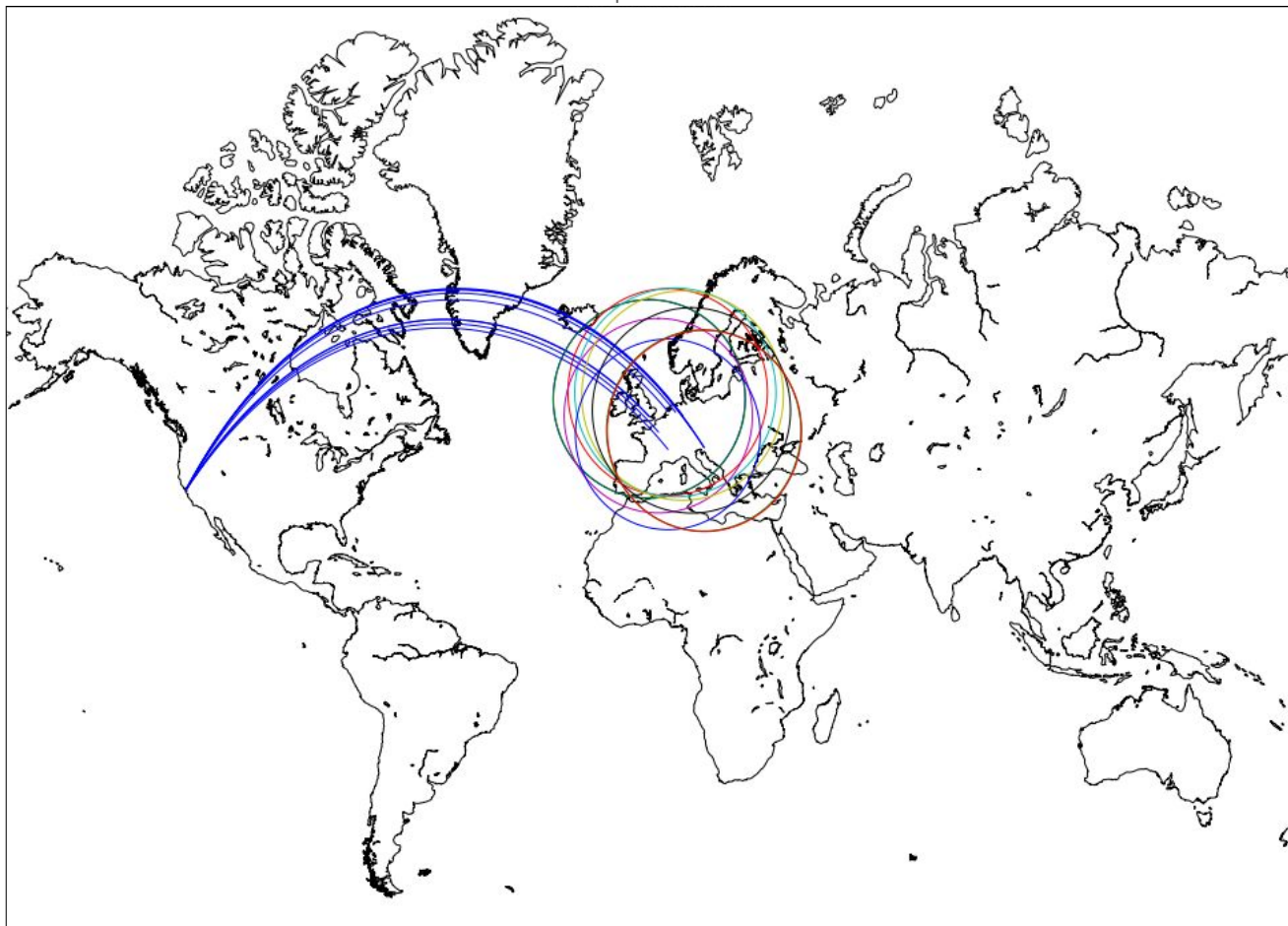
Outcome

- there is a lot things to study and measure in Internet
- not much people aware of Internet measurements data
- community need to be engaged
  - and you need to communicate and promote MORE!!!

Third hackathon

20-21 May 2017 (weekend before ENOG13)
 by "the openNet" with "Ingria Business Park"

Everyone is Welcome!*

* including sponsors