

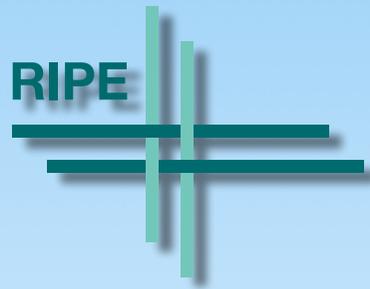


**RIPE
NCC**

RIPE Atlas: Intro & News (Meeting the Community)

Vesna Manojlovic

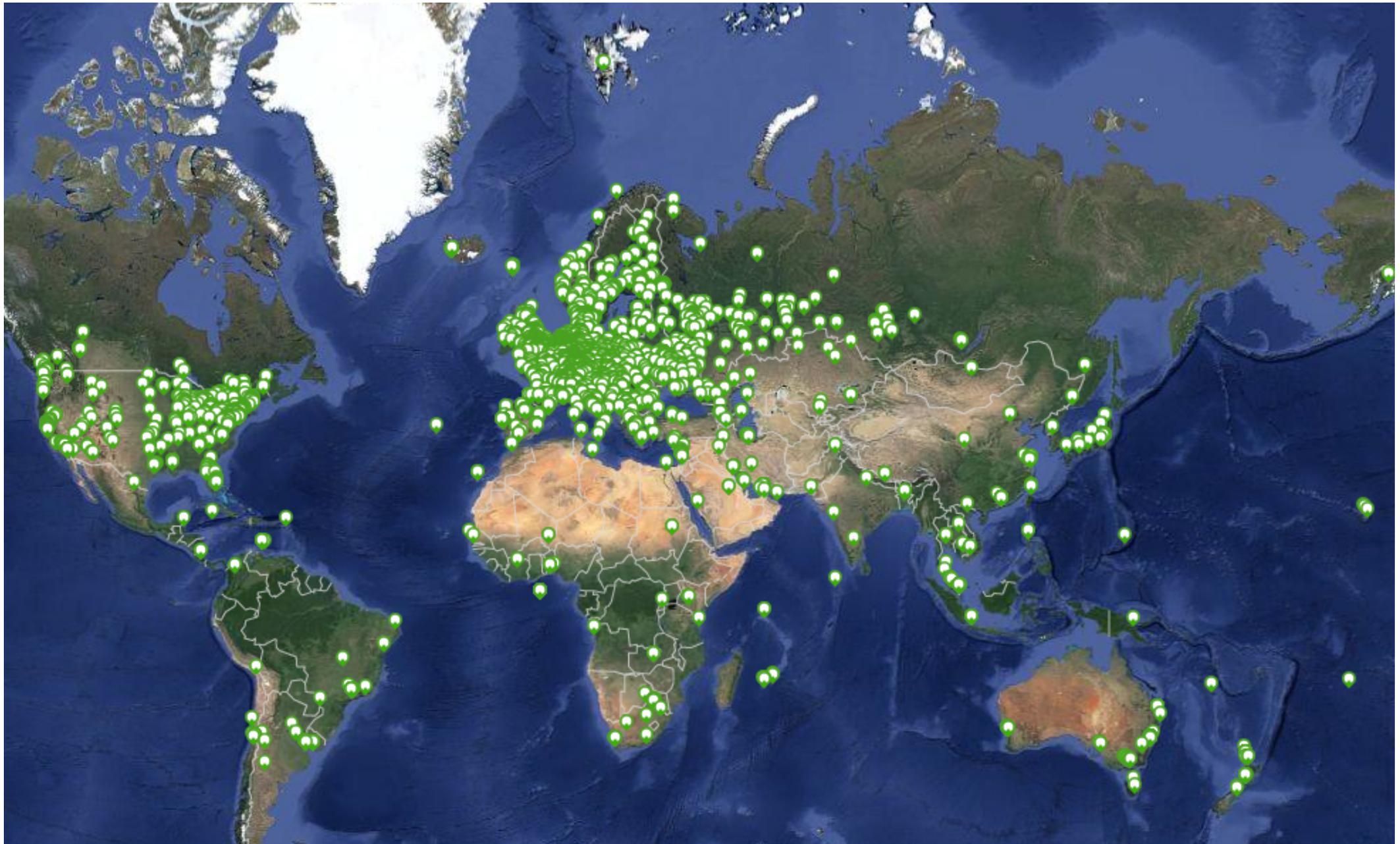
Measurements Community Building, RIPE NCC
&
Technologia Incognita hackerspace



- Réseaux IP Européens
- Started in 1989
- Not a legal entity
- An open community
- No official membership
- Makes policies
- Meets twice a year
- Work is done in Working Groups on mailing lists



- RIPE Network Coordination Centre
- Started in 1992
- Not-for-profit organisation
- Located in Amsterdam
- Has members called Local Internet Registries (LIRs)
- Implements policies
- Facilitates two RIPE Meetings each year
- Provides services to both members and non-members
- Governed by an Executive Board elected by membership
- Neutral, Impartial, Open, Transparent



- v1 & v2: Lantronix XPort Pro
- v3: TP-Link TL-MR3020 powered from USB port
 - Does not work as a wireless router!
- RIPE Atlas anchor: Soekris net6501-70

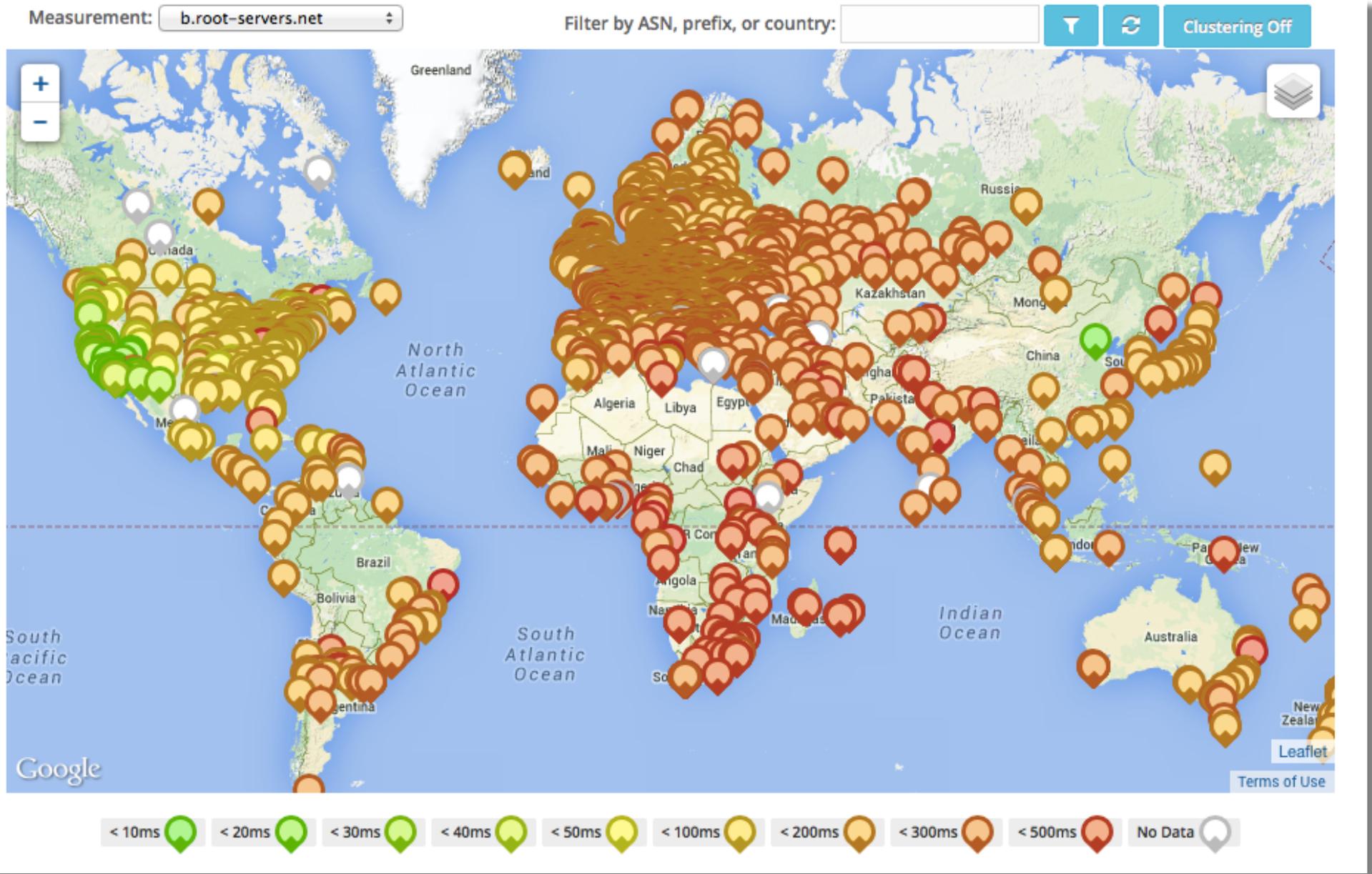


- 7,500+ probes connected at any moment
 - 10.000+ probes distributed
- 97 RIPE Atlas anchors
- 3,000+ active users last 3 months
 - 19.000+ registered users ever
- 1,000+ built-in measurements daily
- 5,000+ user-defined measurements daily
 - Four types of user-defined measurements available to probe hosts and RIPE NCC members: **ping, traceroute, DNS, SSL**

Country	Probes
United States	886
Germany	789
France	700
United Kingdom	558
Nederland	428
Russia	417
Czech Republic	229
Ukraine	189
Belgium	183
Switzerland	179

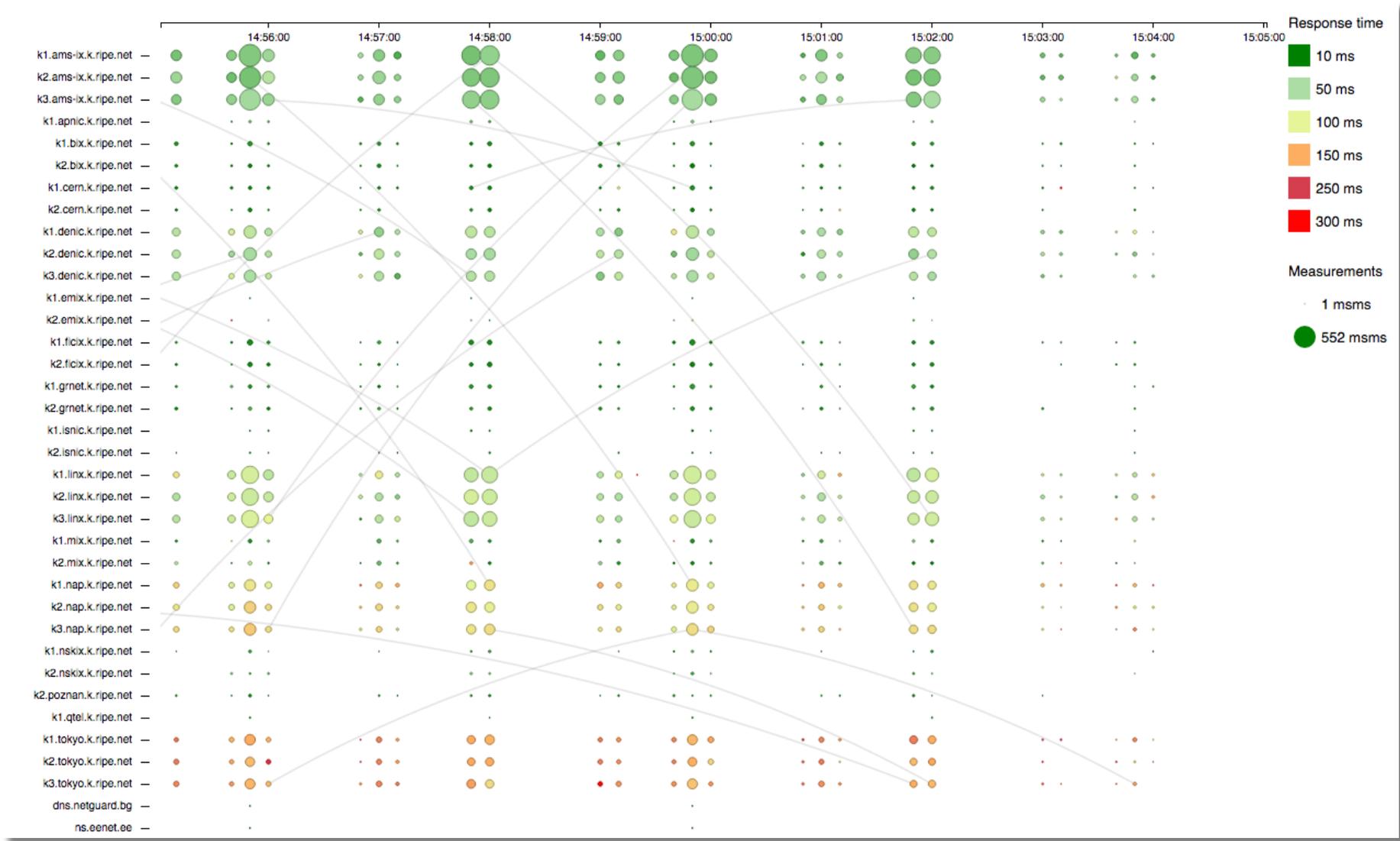
- Probes have hardwired trust material (registration server addresses / keys)
- The probes don't have any open ports; they only initiate connections - this works fine with NATs, too
- Measurements are scheduled by centralised “command servers” via reverse ssh tunnels
- Probes don't listen to local traffic; there are no passive measurements running
- Measurement source code published
- Reported vulnerabilities: <https://atlas.ripe.net/docs/security/>

Where is B-root?



- <https://atlas.ripe.net/docs/>
 - <https://atlas.ripe.net/docs/sagan/>
 - <https://atlas.ripe.net/docs/measurement-creation-api/>
 - <https://atlas.ripe.net/docs/measurement-latest-api/>
 - <https://atlas.ripe.net/docs/result-streaming/>
-
- Use cases:
 - <https://labs.ripe.net/atlas/user-experiences>
 - <https://labs.ripe.net/atlas/user-experiences/scientific-papers>
 - <https://labs.ripe.net/atlas/user-experiences/presentations-tutorials-and-videos>

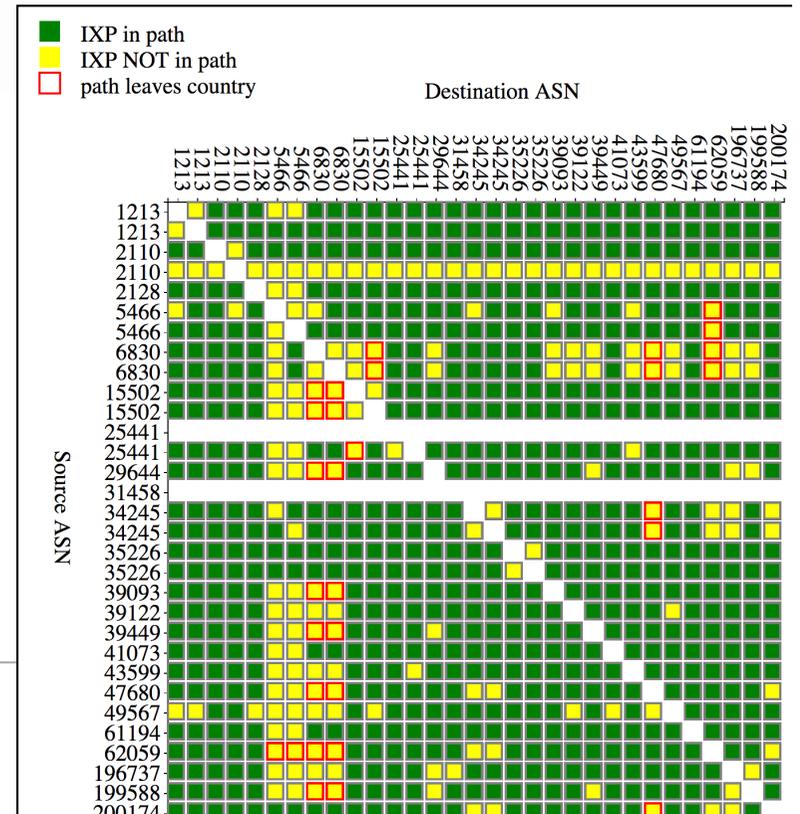
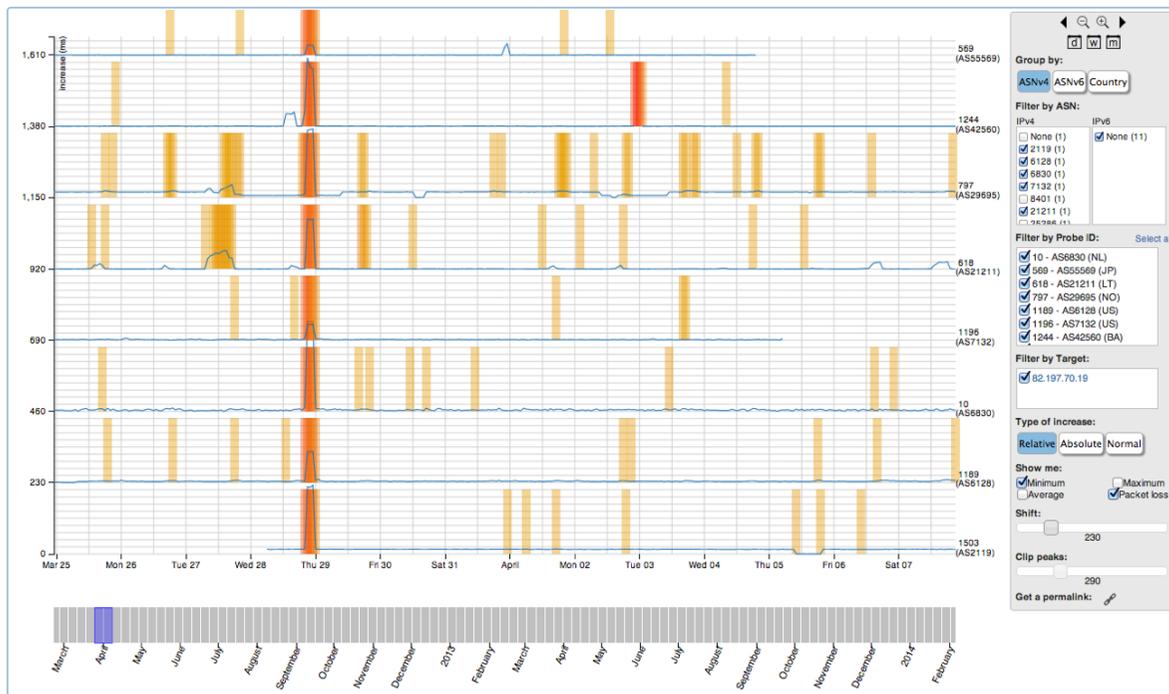
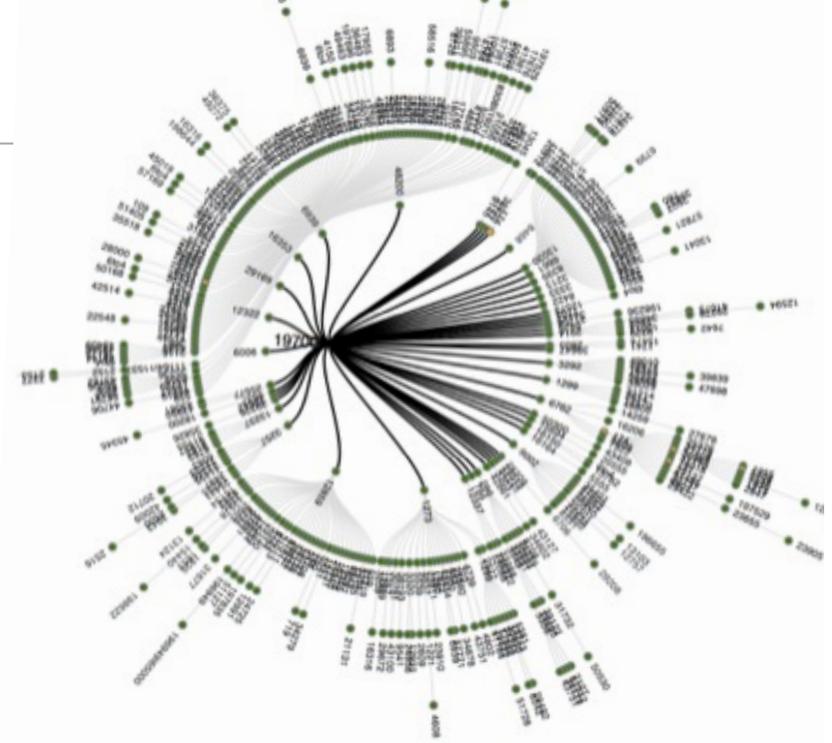
New: Streaming — Monitoring K-root performance



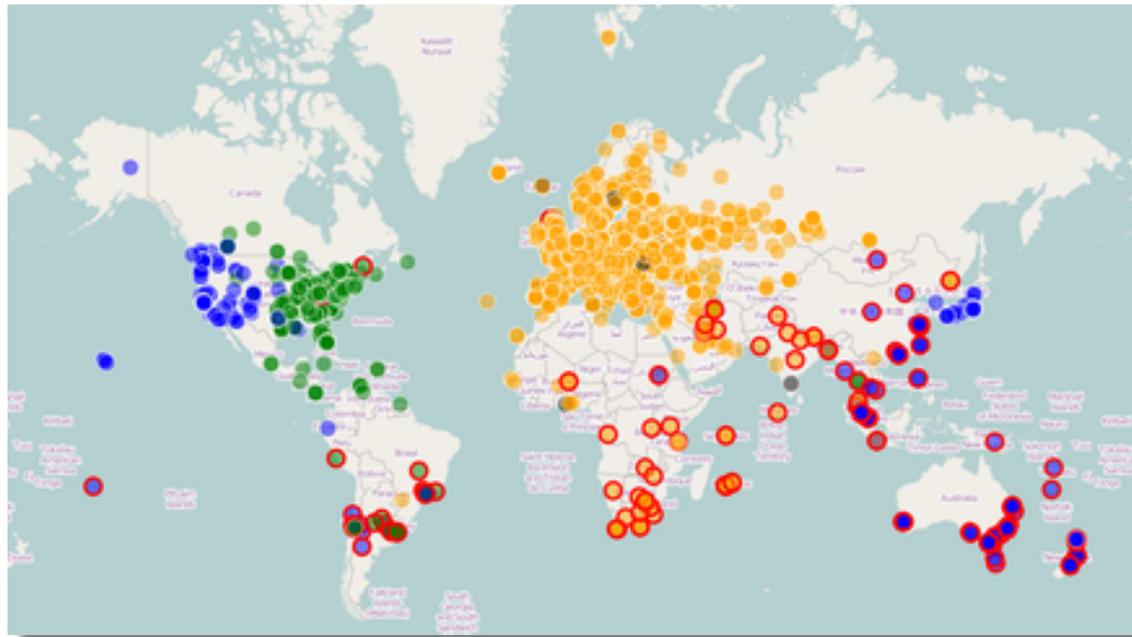
- https://labs.ripe.net/Members/suzanne_taylor_muzzin/data-streaming-in-ripe-atlas

Our Visualizations

- <https://labs.ripe.net/Members/emileaben/visualise-your-ipv6-connectivity-using-ripe-atlas>
- https://labs.ripe.net/Members/massimo_candela/seismograph-user-guide

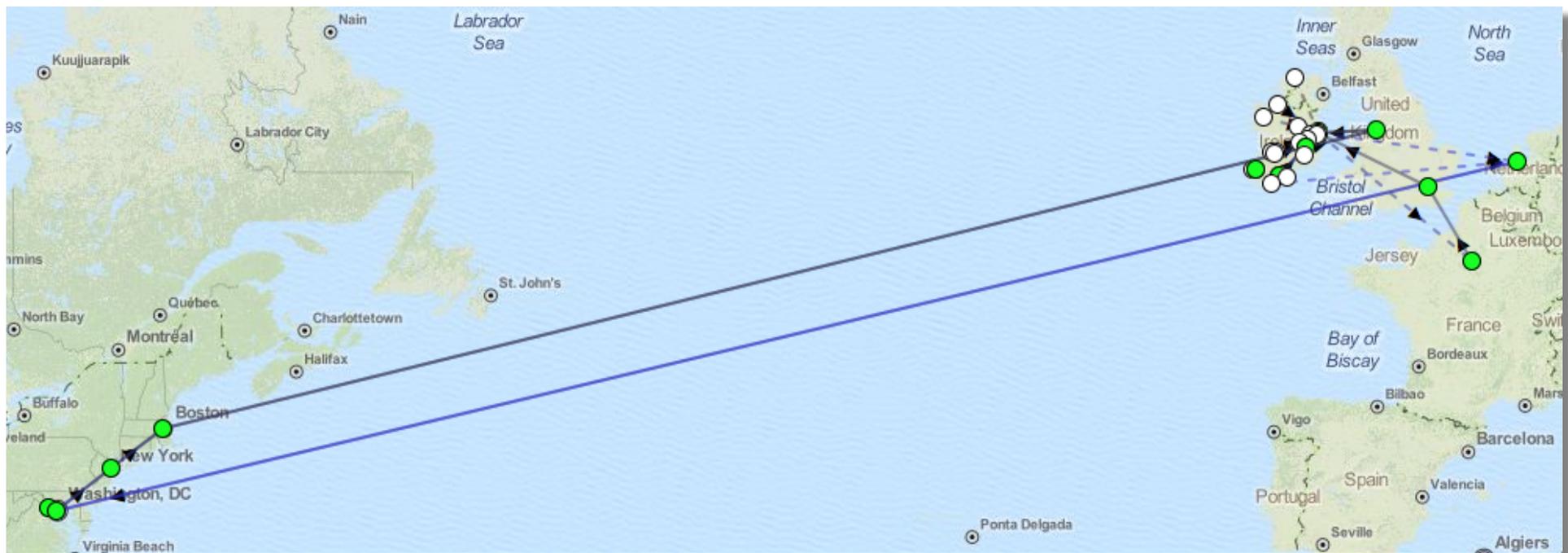


- Measuring the latency of sites for users worldwide.
 - identified ways to decrease latency and improve performance
 - <https://labs.ripe.net/Members/emileaben/how-ripe-atlas-helped-wikipedia-users>
- Map code is available - please contribute to improve it!
 - <https://github.com/RIPE-Atlas-Community/datacentre-latency-map>



Open IP Map - Please Participate!

- Geolocating Internet infrastructure by crowdsourcing
- <https://marmot.ripe.net/openipmap/>
- <https://github.com/RIPE-Atlas-Community/openipmap>



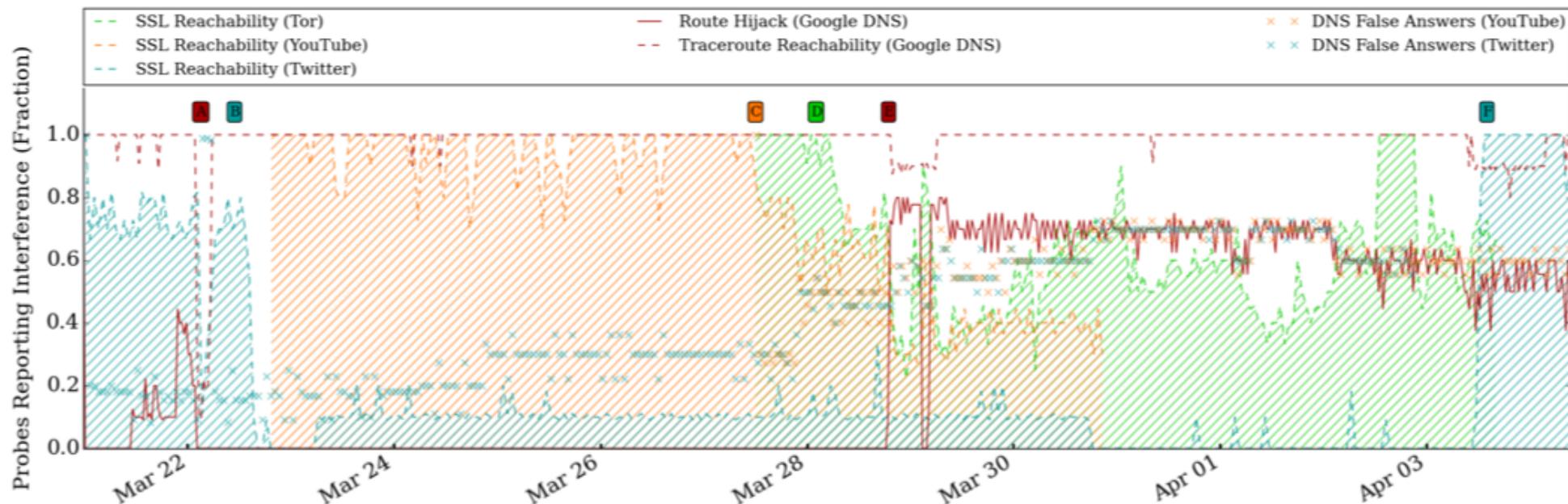


Figure 2: Disruption of Social Media Platforms in Turkey, March – April 2014

<http://cartography.io/foci2014.pdf>

RIPE Atlas

42 Hackerspaces with a [RIPE Atlas Probe](#)

To ask for a probe: atlas.ripe.net/apply

To add a probe to your hackerspace: edit the page of your hackerspace on this wiki; at the bottom of the page, add the name of your hackerspace on this map!

For more info, see [Project description "RIPE Atlas probes at hackerspaces"](#) and [the workshop at 29c3](#)



<http://hackerspaces.org/wiki/RIPE Atlas>

- Programmers contribute analysis code
 - <https://github.com/RIPE-Atlas-Community/>
- Code written by RIPE NCC:
 - <https://github.com/RIPE-Atlas-Community/RIPE-Atlas-data-analysis>
- Parsing Library: Sagan:
 - <https://github.com/RIPE-NCC/ripe.atlas.sagan>
- Measurements source code available
 - https://labs.ripe.net/Members/philip_homburg/ripe-atlas-measurements-source-code

- HTTP measurements
 - technically already possible, ethically questionable
 - proposal: enable them *only* towards anchors
 - Questions:
 - would you find that useful? why? why not?
- WiFi measurements
 - suggested to enable wireless on the probe
 - use case: measure the EduRoam auth/connection
 - Questions:
 - would you find this useful?
 - would you still want to reply a probe, if WiFi enabled?

- 27-28-29 March 2015, in Amsterdam
- Goals:
 - use open data from RIPE Atlas
 - create new useful & beautiful visualizations (or modify old ones!)
 - publish code as FLOSS (e.g. on GitHub)
- Calling: **designers, students, hackers, data-lovers, programmers, network operators...**
- Read more: https://labs.ripe.net/Members/suzanne_taylor_muzzin/ripe-atlas-hackathon-2015
- Apply: <https://atlas.ripe.net/hackathon/2015/>

- <https://atlas.ripe.net>
- Apply for an anchor:
<https://atlas.ripe.net/anchors/apply/>
- Mailing list for active users: ripe-atlas@ripe.net
- Roadmap: <http://roadmap.ripe.net/ripe-atlas/>
- Articles & updates on RIPE Labs:
<https://labs.ripe.net/atlas>
- Questions: atlas@ripe.net
- Twitter: @RIPE_Atlas and #RIPEAtlas