



RIPE NCC
RIPE NETWORK COORDINATION CENTRE

RIPE NCC Hackathons & Community Building

Vesna Manojlovic
BECHA@ripe.net

October 2018 | Quantum Internet Hackathon | Amsterdam



Starting with GRATITUDE!

- Big thanks to:
 - QuTech for the idea & content & many hands on deck!
 - Juniper: sponsor of equipment & logistics partner
 - VolksHotel, our venue
 - RIPE NCC colleagues, in the office & here
 - ... and of course ALL OF THE PARTICIPANTS!!!
 - and to your families who are missing you this weekend, and gave you support to prepare, travel & recover :)



RIPE NCC Hackathons

- Hack-a-thon = hacking marathon
 - intensive coding on FLOSS (free and open source software)
- **hacker:** n.
 - [originally, someone who makes furniture with an axe]
 - 1. A person who enjoys exploring the details of programmable systems and how to stretch their capabilities, as opposed to most users, who prefer to learn only the minimum necessary. RFC1392, the *Internet Users' Glossary*, usefully amplifies this as: A person who delights in having an intimate understanding of the internal workings of a system, computers and computer networks in particular.
- Cooperative, collaborative, non-competitive
- Non-commercial: no monetary rewards

Goals for the hackathons, in general



- bring together operators, researchers, designers, coders, hackers
- combine creative skills
- & get feedback for RIPE NCC
 - (originally: about RIPE Atlas)
- contribute useful tools for operators
- make new connections
- have fun!



Goals of the Quantum Internet hackathon



- make progress towards Quantum Internet
- bring together quantum-tech researchers & RIPE community network operators
 - & software developers & hackers & ...
- combine creative skills
- contribute useful tools for Quantum Tech
- make new connections
- continue cooperation



Powered by Stroopwafels!





Best Behaviour

- Cooperation & Team-Work
 - form the team of most diverse people possible
 - get to know each other; be constructive; cooperate
 - the goal is to contribute, not to compete nor to win
 - unconference motto: “walk with your feet”
- Code of Conduct
 - be tolerant & respectful; encourage exchange of ideas
 - do NOT be demeaning, intimidating or harming
 - if you feel hurt or offended, speak to the organisers



Logistics - venue

- The big room is for the general presentations
 - sits only 38 in the “U-shape” setup
- The “work” will be done both in this room & in the co-working space (lobby)
 - we will change the setup into “islands” ~11am/12am
- Toilets are down-stairs
- Smoking is outside
- Coats & bags - here or in the *lockers*...
- Power-extenders, cables, chargers... please be careful!



Logistics - communication

- WiFi: SSID: "Volkshotel"
- EtherPad:
 - <https://pad.riseup.net/p/quantum-internet-hackathon-2018-keep>
- Mailing List:
 - <https://lists.ripe.net/mailman/listinfo/quantum-internet-hackathon>
- IRC channel:
 - <irc://irc.oftc.net> #ipv6hackathon
- Vesna's phone: +31 6 2125 8191 (voice, SMS, Signal)
- Social media - anyone objects to photos taken&published?





Logistics - timing

- Saturday 9am = start!
 - Introductions, project pitches, team building
 - 11am => hacking!
 - ~ 12:30 pm: lunch break
 - ~ 6 pm: “stand-up” = review of projects
 - ~ 19:00 pm: dinner
 - hotel lobby open until 1am for more after-dinner hacking!
- Sunday 24th June - 9am hackathon continues!
 - 11 am: “stand=up” = review of projects
 - ~ 6pm project presentations (event closes at 7:55 pm)
 - 8 pm = Celebratory Dinner & Drinks

Logistics - food & drinks & give-aways



- Snacks, Tea, Coffee, Soft-drinks provided all day 2 days
- Special Coffee => Barista! (say “Fransje” for “tab”)
- Lunch = Sandwiches,Soup,Salad => Upstairs (“Canvas”) !
- Saturday dinner: 7pm => Upstairs! “walking” & open bar
- Sunday: celebration dinner: 8PM in **Drovers Dog**
 - <http://drovers-dog.com/dog3/menu/>
- And also:
 - T-shirts!
 - Stroop-wafels!
 - Stickers!



Content: goals and process

- Goal: working prototype for your project
- Form teams of 3-6 people
 - form the team of most diverse people possible
 - take one of the available desks (here or co-working space)
 - plan your work on the project; consider available time!
 - divide the tasks into modules that can be parallelised
- Upload code to GitHub (or other public repo)
- Prepare final presentation / demo
 - not longer than 5 minutes! starting at 6PM Sunday!



Process & teams, continued

- Choose a **name** for the team and/or project
- Choose a team leader/ (mini) project manager
 - keeps track of time, deliverables, division of tasks
- Choose one (or more) spokesperson(s)
 - for the standup / review, for the final presentation
- Slides: guideline: 5 slides for 5 minutes!
 - name&members; goal; method; results/lessons learned; follow-up
 - send slides to me or copy on USB stick



Current Challenges & Proposals

- A: testing the network
 - a network ping (or a quantum version of a ping)
 - visualizing network diagnostics.
- B: take SimulaQron's network tools to a new level (Axel)
- C: taking QChat to new heights (Matt)
- D: new use of SimulaQron
- Implications of quantum internet on routing protocols (Kireeti Kompella)
- Quantum BitCoin (Wojciech Kozlowski)
- Quantum Digital Signature (Shota Nagayama)
- Measurement Based Quantum Computation subroutine (Shraddha)



What happens after?

- The “report” will be published on RIPE Labs
 - labs.ripe.net/hackathons
 - contains photos, links to presentations & code, stories
 - if you write a blog post, please send us the link
- On Tuesday: a Lightning Talk at RIPE77
- Next hackathons are in the planning
- Please send feedback!
- Mailing list will be closed
 - merged with the “general” hackathons list; you can opt-out

Table of results

Team / project	Project	Code	Slides	Website / Demo
1	Monitoring DNS Propagation Times	Code	Slides	
2	DNS Resolver Hijack Tester	Code	Slides	
3	DNS Fingerprinting	Code	Documentation	Comments on HackerNews / Y Combinator
4	Reverse DNS Statistics	Code	Slides	





Introduce yourself

- Your name
- **Where** do you come from? Where do you live?
- Work / study? (job / employer / university)
- What is your **goal** fro this hackathon?
- What can you **contribute**? (skills, expertise)



**At the end of the
hackathon...**

End of hackathon: Give us feedback!



- What did you like?
 - coffee? stickers? T-shirts?
 - communications channels?
 - stroopwafels??
- What could have been better?
 - we'd like to improve for the next time!
- BECHA@ripe.net



Moar Hackathons!

- "Learning & Student Analytics & AI" Hackathon
- 22-23 October 2018, Amsterdam
- <http://lsac2018.org/#hackathon>
- MEF18 LSO Hackathon
- 29 - 31 October 2018, Los Angeles, USA
- <https://www.mef18event.com/index.php/mef18-lso-hackathon>
- IETF 103 Hackathon
- 3-4 November 2018, Bangkok, Thailand
- **Calendar:** <https://www.ripe.net/participate/meetings/upcoming-hackathons>



RIPE Meetings



RIPE Meetings

- Twice a year, whole week long
- Working groups, plenary sessions, tutorials
 - Remote participation possible
 - tickets: week (€ 350), day (€ 125), student/week (€ 50)
 - new LIRs get two “gratis” tickets
- RIPE 77: Amsterdam: 15-19 October 2018
- RIPE 78: Reykjavik, Iceland, May 2019
 - <https://www.ripe.net/participate/meetings>



RACI

RIPE Academic Cooperation Initiative

etings

- Complimentary tickets, travel and accommodation
- Topics: network measurement and analysis, **security**, IPv6 deployment, BGP routing, Internet governance, peering and interconnectivity, IoT
- ripe.net/raci



RIPE Fellowship

- Get support to attend RIPE meeting
 - Removing the cost barrier
 - Increasing diversity
 - <https://labs.ripe.net/Members/agowland/apply-now-for-new-ripe-fellowship-programme>
- Five fellows/fellow-esses per meeting
 - Complimentary tickets, travel and accommodation provided
- Apply
 - <https://www.ripe.net/participate/ripe/ripe-fellowship>



RIPE Diversity Task Force

- Diversity is important!
- Started a Task Force to coordinate the efforts
 - <https://www.ripe.net/participate/ripe/tf/ripe-diversity-task-force>
- Mailing list:
 - <https://lists.ripe.net/mailman/listinfo/diversity>
- Articles:
 - <https://labs.ripe.net/diversity>



Other Meetings



Regional Meetings

- Once a year:
- MENOG
- ENOG
- SEE
- [https://www.ripe.net/participate/meetings/
regional-meetings](https://www.ripe.net/participate/meetings/regional-meetings)
- Open to everyone
- Also: mailing lists for regional cooperations



Training courses

- Six different types
- Every week, all over RIPE NCC region
 - LIRs/members only
 - One day, or two day, or with a lab / workshop
- On-line options: Academy, Webinars, Tutorials
 - open to everyone
- ripe.net/training / training@ripe.net



Community Support



NOG Support

- (country) Network Operators Groups
 - e.g. SwiNOG, iNOG, NLNOG, UKNOF, RSNOG, DENOG...
- labs.ripe.net/nogs
 - An overview of events, a calendar, and a map
 - RIPE NCC has funding for NOG meetings
 - supporting mostly new or smaller NOGs
 - Please ask if you want us to send a speaker



Community Projects Fund

- RIPE NCC is financially supporting projects that benefit Internet community (250,000 Euro)
- Info: <https://www.ripe.net/support/cpf/ripe-ncc-community-projects-fund>
- Next round: 2019



Previous RIPE NCC Hackathons

- [labs.ripe.net/hackathons](#)
 - RIPE Atlas [DataViz](#) (March 2015, Amsterdam)
 - RIPE Atlas [Tools for Operators](#) (October 2015, Bucharest)
 - RIPE Atlas [Interfaces](#) (April 2016, Copenhagen)
 - [IXP Tools](#) (October 2016, Madrid)
 - IXP Tools [Code-Sprint](#) (April 2017, Amsterdam)
 - [DNS Measurements](#) (April 2017, Amsterdam)
 - Version6 (November 2017, Copenhagen)
 - Network Operators Tools (June 2018, Dublin)
- All [code on GitHub](#)



Future Participation in Hackathons

- Use the software and tools
 - Share your use cases and success stories
- Modify the code, contribute improvements
 - All the code is on [GitHub](#)
- Early call for 2019
 - Two events planned: Spring and Autumn
 - Be a host / local partner / juror / sponsor
 - Be a participant again :)
- Calendar: <https://www.ripe.net/participate/meetings/upcoming-hackathons>



RIPE Labs

INNOVATIVE INTERNET TOOLS AND IDEAS
SHARE EXPERIENCE | SHOWCASE TOOLS | PRESENT RESEARCH

- Publish your research or use case
- Reach out to RIPE Community
- Read about latest analysis or conferences
- labs.ripe.net



RIPE Atlas



WIKIPEDIA
The Free Encyclopedia

Main page
Contents
Featured content
Current events
Random article
Donate to Wikipedia
Wikipedia store

Interaction

Help
About Wikipedia
Community portal
Recent changes
Contact page

Becha Talk Sandbox Preferences Beta Watchlist Contributions Log out

Becha

0

Talk Sandbox Preferences Beta Watchlist Contributions Log out

Article

Talk

Read

Edit source

Edit



More ▾

Search



RIPE Atlas

From Wikipedia, the free encyclopedia

RIPE Atlas is a global, open, distributed Internet measurement platform, consisting of thousands of measurement devices that measure Internet connectivity in real time.

Contents [hide]

- 1 History
- 2 Technical details
- 3 Community
- 4 Research papers
- 5 Similar projects
- 6 References
- 7 External links
- 8 Categories





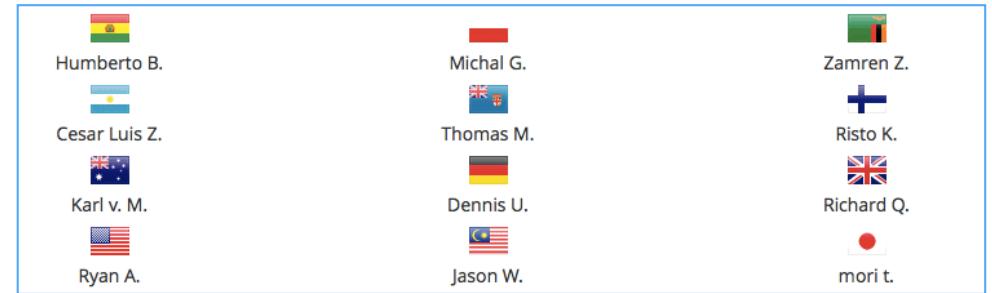
Most Popular Features

- Six types of measurements: ping, traceroute, DNS, SSL/TLS, NTP and HTTP (to anchors)
- APIs to start measurements and get results
- Powerful and informative visualisations
- CLI tools
- Streaming data: real-time results
- “Time Travel”, LatencyMON, DomainMON, TraceMON
- Roadmap shows what’s completed and coming

RIPE Atlas Community Participation



- 19,000 probes given to **volunteers / hosts**
 - out of that, 10,000+ active
- 36,000 **users**
- 311 anchors hosted by **operators**
- On average five **sponsors** every year
- 400+ **ambassadors**, at many conferences
 - <https://atlas.ripe.net/landing/get-involved/>
 - <https://atlas.ripe.net/get-involved/community/>





Get Involved!

- Use RIPE Atlas for your operations: monitoring, troubleshooting, measuring
- Do scientific research
- Participate in a webinar
- Add multi-lingual content
- Become an ambassador or a sponsor
- Host a RIPE Atlas anchor
- Place a probe in a new exotic location



More info & contacting RIPE Atlas

- <https://atlas.ripe.net>
- Use cases and updates: <https://labs.ripe.net/atlas>
- Mailing list for active users:
 - ripe-atlas@ripe.net
 - <https://www.ripe.net/participate/mail/forum/ripe-atlas>
- Questions: atlas@ripe.net
- Twitter: [@RIPE_Atlas](https://twitter.com/RIPE_Atlas) and #RIPEAtlas