RIPE NCC
RIPE NETWORK COORDINATION CENTRE

RIPE NCC Tools Update

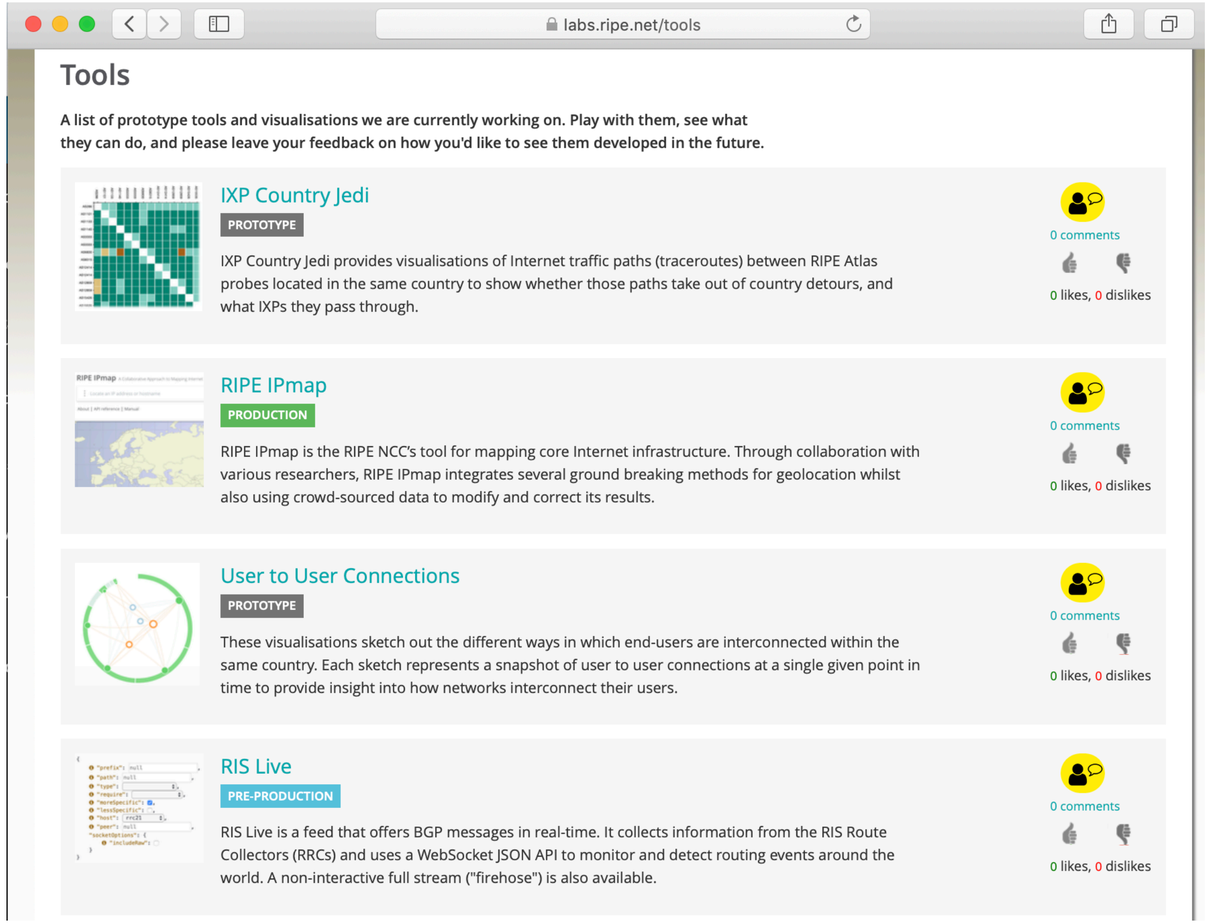
RIPE Labs

RIPE Labs

10 Years of RIPE Labs

- Join us in celebrating 10 Years of RIPE Labs
- 11,050 articles since 2009
- Time for a revamp!
- We’re considering new design, content, features and functions
- Take part in reimagining RIPE Labs and share your ideas with us
  - @RIPELabs
  - labs@ripe.net

Tools on RIPE Labs



https://labs.ripe.net/tools

Research and Prototyping

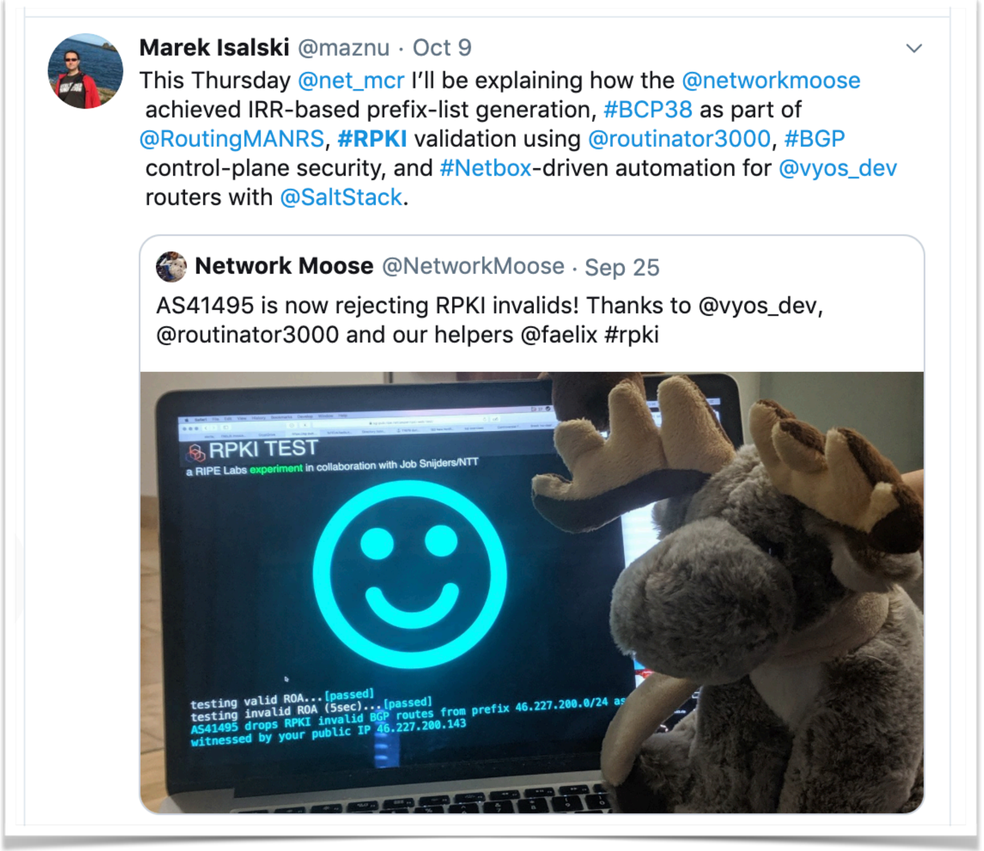
Articles on RIPE Labs

Some articles from the recent past:

- 25,000 LIRs - An End to the Milestone Highs?
- How Diverse is RIS?
- Routing to and from the Netherlands
- RPKI Test
- Inter-RIR Collaboration Produces new Product Prototype
- RIPEstat is Getting Ready for a Face-Lift
- … and more on RIPE Labs

Research, Tools and Collaboration

```
SELECT day, status, count(status) AS count
FROM  `data-test-194508.prod.probes`
WHERE  longitude >= -123.5 AND longitude <= -120.5
AND    latitude  >=   36   AND latitude  <=   40
AND    day >= "2019-10-01"
AND   (status = 1 OR  status = 2)
GROUP BY day, status
ORDER BY day, status
```



RIPE Atlas

At a Glance

- Probe population is stable at 10K+
- We have over 500 connected anchors now
  - 145 are virtual
  - Amazon AWS anchors were done before, Google GCP anchors are coming
  - Apply for your own at https://atlas.ripe.net/get-involved/become-an-anchor-host/
- Hardware probe stock is being replenished
- Major internal works are about to conclude
- Software probes are coming!

Software Probes

- Just like the hardware probes - but without the need to ship and install dedicated hardware!
  - On servers, VMs, (home) routers, etc.
- We use dedicated controlling infrastructure for these probes
  - This is transparent to the users: probe hosts and “measurers”
  - Using probe tags to let users select to use these or not
- Application/registration procedure is somewhat different
  - Because there’s no physical manifestation, proof of ownership is different
  - We’d like to welcome software probes from all networks
  - We can add throttling to applications if needed

Software Probes

Randy/Seattle Deb10

General | Network | Built-ins | UDMs | Status (beta)

General Information

Id	1000004
MAC Address	N/A
Architecture	software
Host	Randy Bush
Sponsor	RIPE Atlas
Firmware Version	5000
Router Type	
Bandwidth Limit	Not set
DNS Entry	Off
Shared Publicly	Yes
User Tags	Fibre, Datacentre, Academic, No NAT, Native IPv6, dual-stack, IPv4, IPv6, Multihomed, Native IPv4, iwantbcp38compliancetesting
System Tags	Resolves A Correctly, Resolves AAAA Correctly, IPv4 Works, IPv6 Works, IPv4 Capable, IPv6 Capable, Software

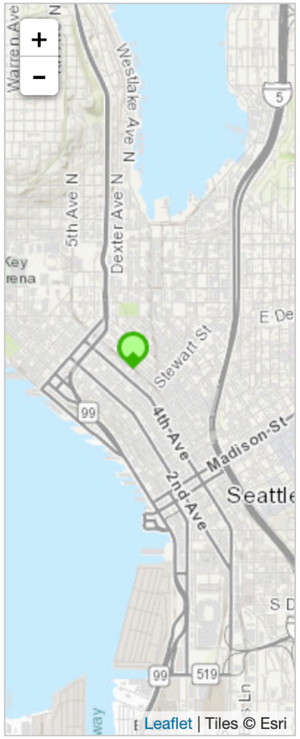
Connection & Traffic

No data available for Probe # 1000004 for this time period

zoom out

Connected Time

3 days, 17 hours



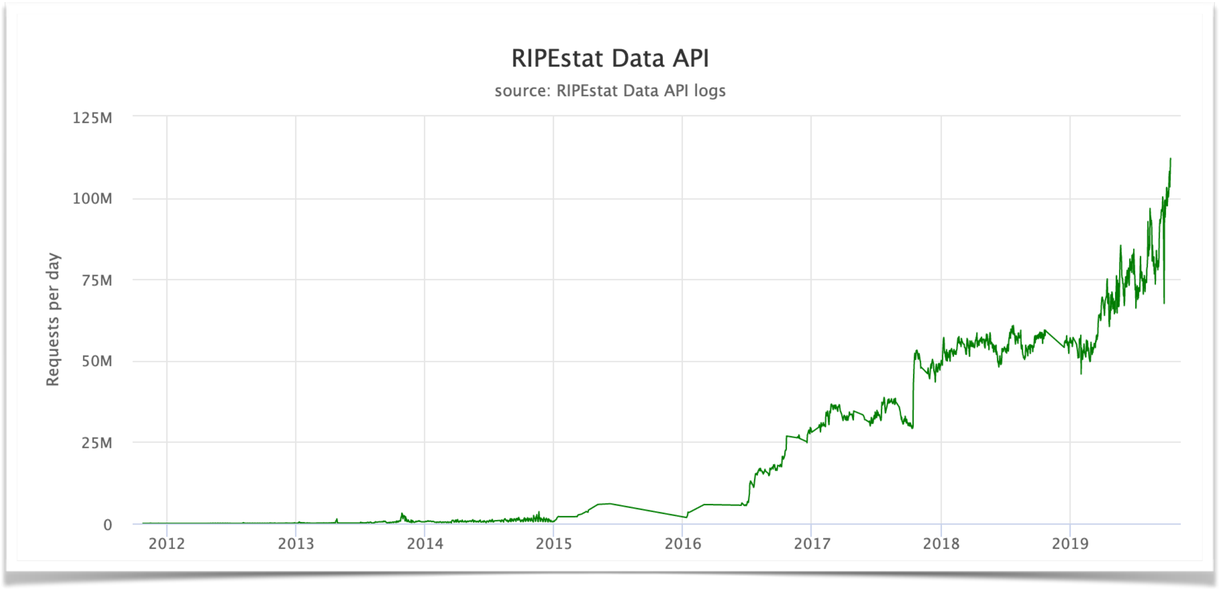
Software Probes

- Entering testing phase now! If you want to help us, fill in the survey:
  - https://www.ripe.net/participate/forms/apply/atlas-probes/
- We make the probe source code public (on GitHub) and maintain an RPM (CentOS) package
- We're contacting (and still looking for) other package maintainers
  - The good folks at CZ.NIC are kindly helping with OpenWRT / Turris ports
  - Including other Linux distributions, Docker, Raspberry Pis… would be useful!
- We expect to conclude the testing phase at the end of the year

Software Probes

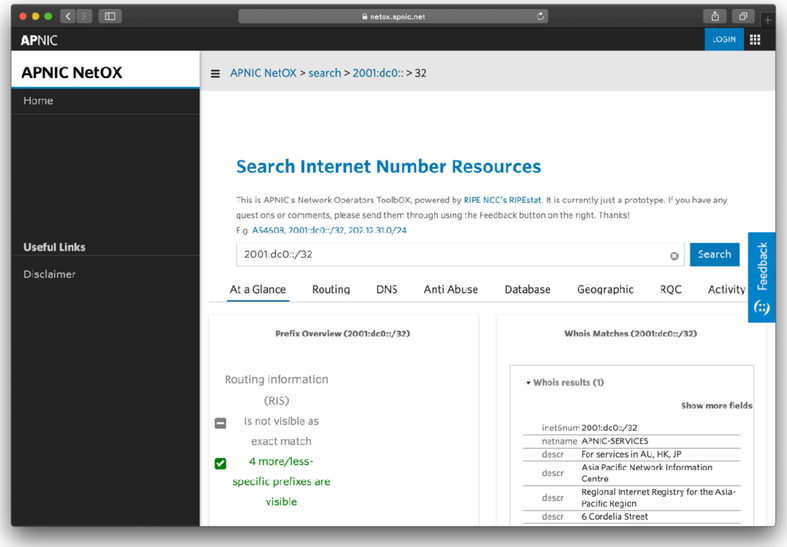
RIPEstat

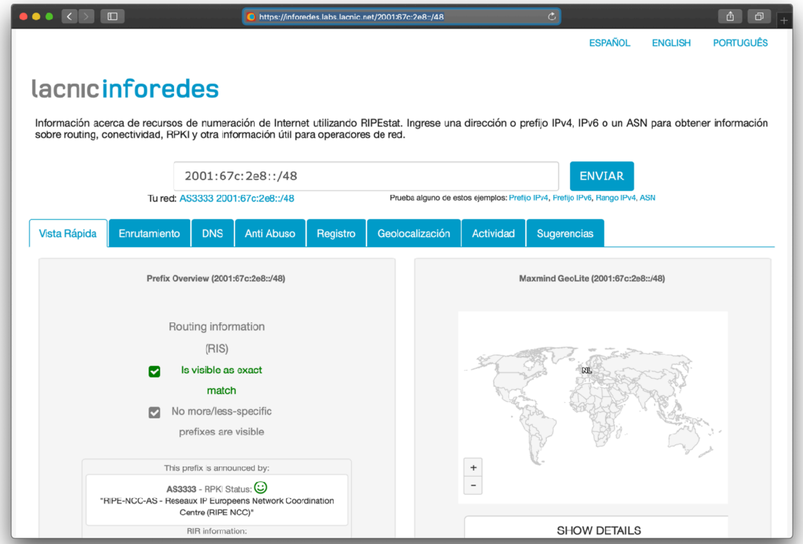
RIPEstat Usage



- 100% increase in 2019 (~50M to ~100M requests/day)
- RIPE NCC Survey 2019: "*RIPEstat is the most used tool of the RIPE NCC tools and services…*"

RIPEstat - RIR Collaboration

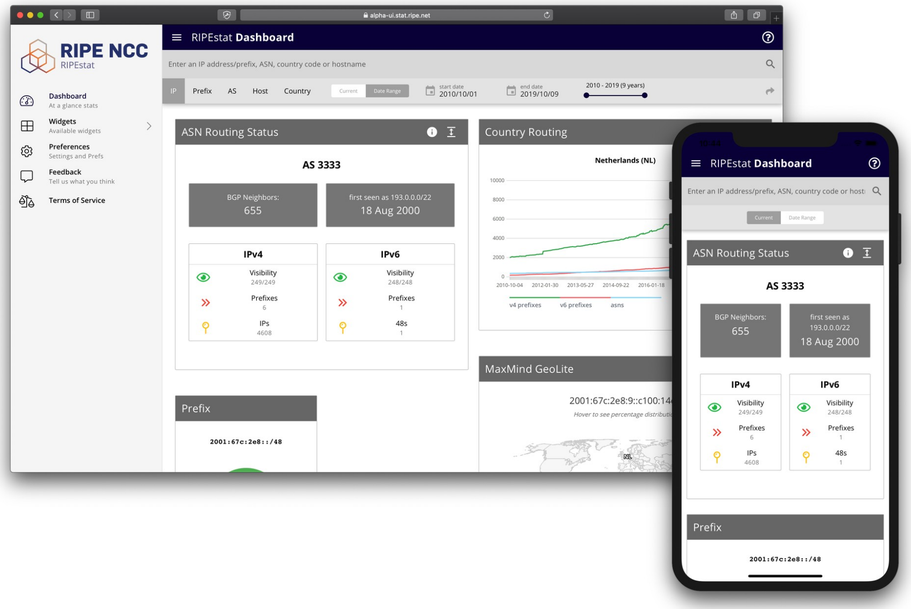




- APNIC's **NetOX** team working on new widgets
- 2nd RIR collaboration: **InfoRedes** at LACNIC
  - https://inforedes.labs.lacnic.net
  - Language support for English, Portuguese and Spanish

RIPEstat - UI Concept

- Development update on new UI
  - Dashboard view
  - More widgets
  - https://labs.ripe.net/Members/stephen_suess_1/ripestat-next-generation-ui
  - https://beta-ui.stat.ripe.net/dashboard



RIPEstat - New Features

- RIPEstat Service Terms and Conditions
  - Regulating also commercial use
  - https://www.ripe.net/about-us/legal/ripestat-service-terms-and-conditions

- New data call providing meta information for RIS RRCs
  - https://stat.ripe.net/docs/data_api#rrc-info

Other Projects

RIS Live

- The service is being prepared for production - watch this space!
- https://ris-live.ripe.net/
- <1s latency end to end
- JSON format
- WebSocket/HTTP stream
- Enthusiasts at NTT have already built an alerter tool on top of this:
  - https://github.com/nttgin/BGPalerter

Questions

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