



**RIPE NCC**

RIPE NETWORK COORDINATION CENTRE

# RIPE NCC Tools Update

Robert Kisteleki  
RIPE NCC

Robert Kisteleki | RIPE 84 MAT WG | 18 May 2022



**Research**

# Articles on RIPE Labs & More



- Published various articles:
  - About the state of the Internet in Ukraine and Russia and more
  - Detecting DNS Root Manipulation
  - The Curious Case of Packets From ::
- Recently in the Internet Country Report series:
  - Bulgaria, Moldova and Romania
  - IPv6 in Sweden
- For more information: see RIPE Labs
- Prototyping Internet outage visualisations based on RIPE Atlas data using Observable



Emile  
Aben



Robert  
Kistelevi



**RIPE Atlas**

# RIPE Atlas

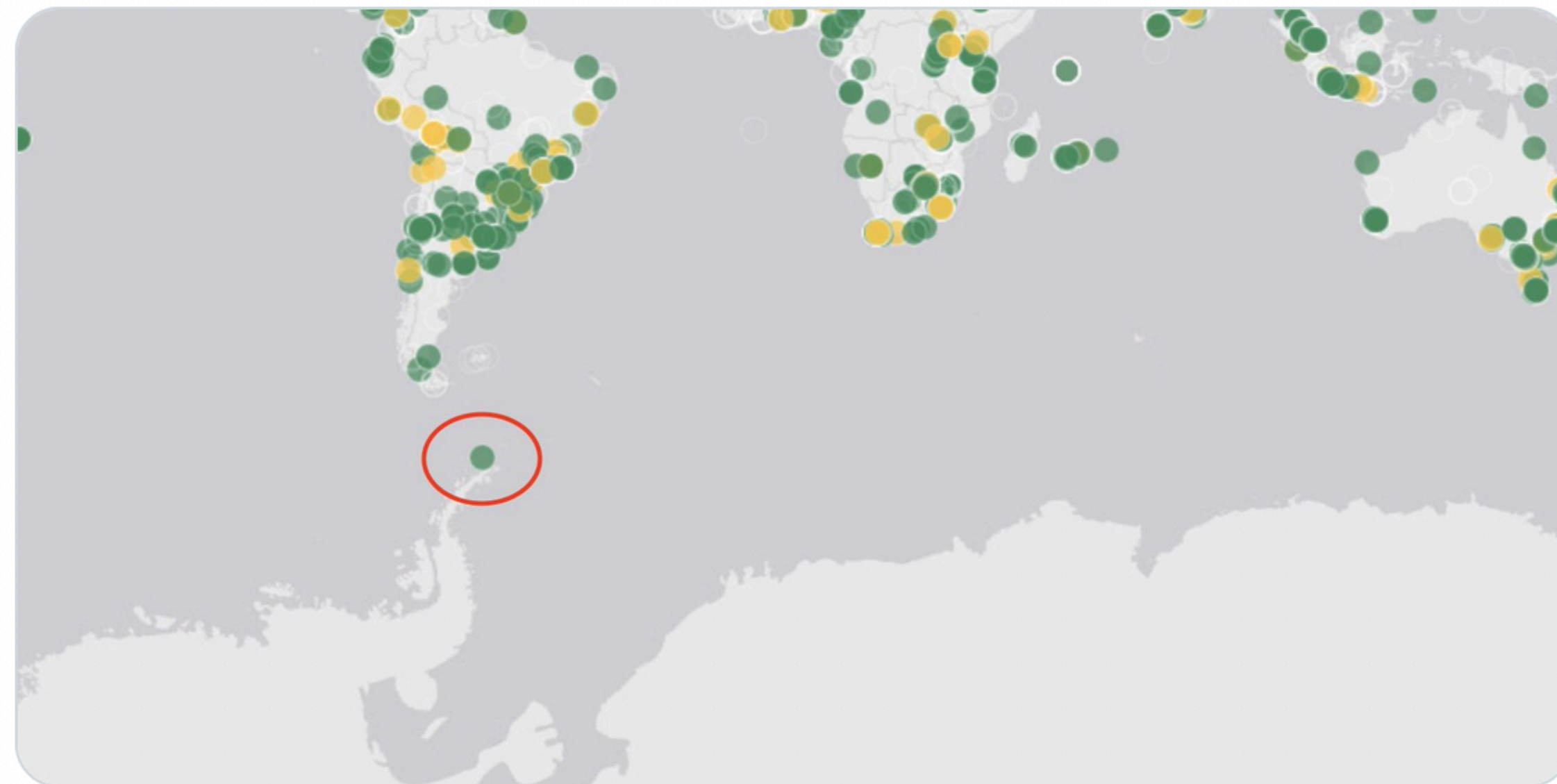


**Sangeetha Abdu Jyothi**  
@sangeetha\_a\_j



There is a RIPE Atlas (Internet measurement network) probe in Antarctica! It is named Antártida1 and is connected to an Argentinian ISP that offers satellite connectivity. So I guess the geolocation is correct (?) That's pretty cool!

[atlas.ripe.net/probes/35735/](https://atlas.ripe.net/probes/35735/)



# RIPE Atlas Recent Developments



- New hardware probes: v5 is almost available
- Work on the revamped UI is ongoing
- Almost ready: measuring “reserved space” i.e. 240/4 and 0/8
- Revamped sponsorship opportunities, starting to improve ambassador relations
- Adding more use cases and looking at the pros and cons of hosting RIPE Atlas data in Google BigQuery
- As usual: lots of operational work on the infrastructure
  - Exploring the possibility to host our Big Data “in the cloud” is ongoing

# RIPE Atlas Proposals



We are working on a few proposals:

- Stop supporting “non-public” measurements
  - Very low usage and makes a number of processes complicated
- Enable HTTP measurements
  - With a number of restrictions to keep it safe
  - From the probe hosts’ perspective: most likely an opt-in model
- The proposals are meant to facilitate conversations with the community
  - Via the MAT Working Group and/or the RIPE Atlas mailing lists

# RIPE Atlas Contacts



You can find us at a table somewhere in the hall:

- Tuesday, Wednesday and Thursday
- We have some T-shirts!
- And a few early bird v5 probes for most wanted networks...



Lia  
Hestina



Christopher  
Amin



Robert  
Kisteleki





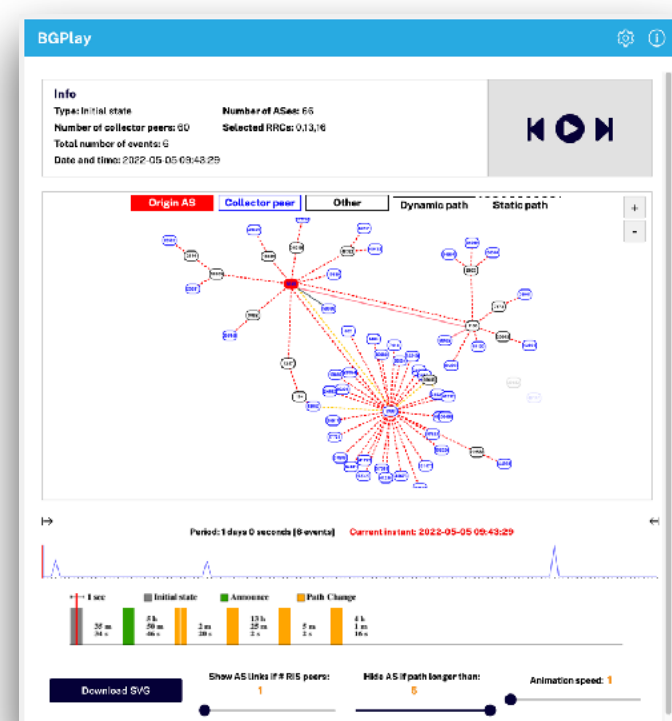
**RIPEstat**

# RIPEstat



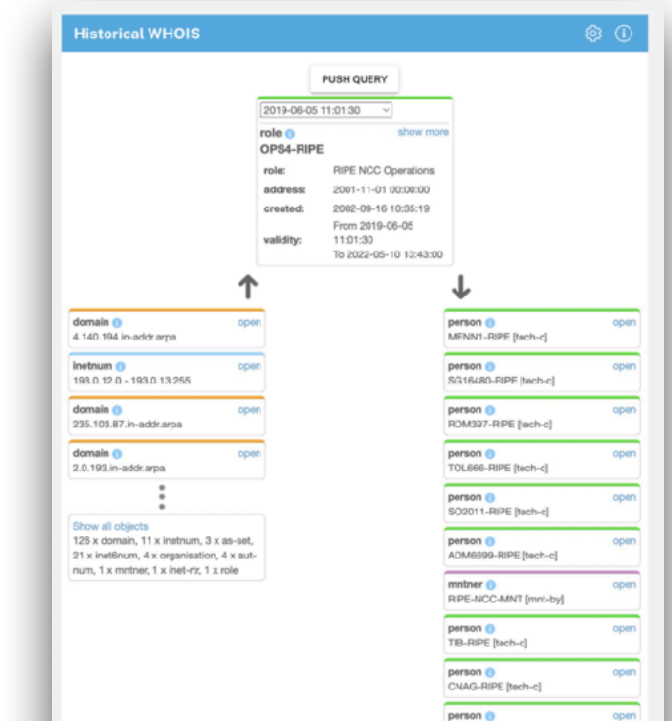
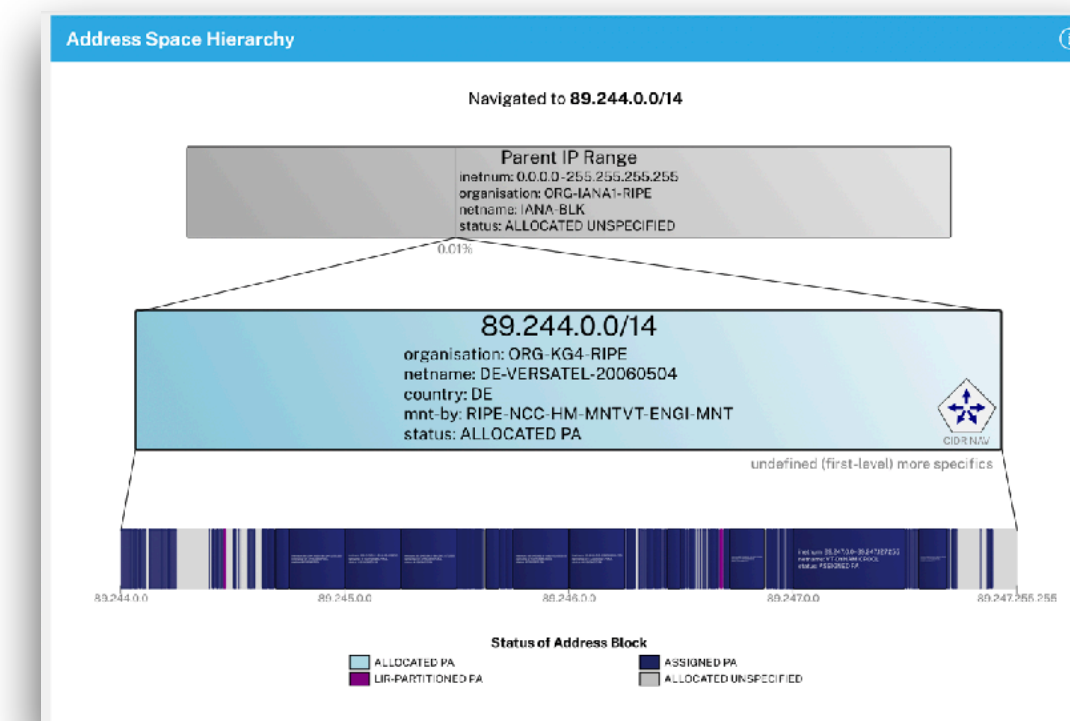
- RIPEstat UI2020

- Ongoing work towards feature parity with UI2013
- New customisation preferences, other improvements and bug fixes
- Change log: [https://stat.ripe.net/docs/03.RIPEstat-UI-\(Current\)/03-releases.html](https://stat.ripe.net/docs/03.RIPEstat-UI-(Current)/03-releases.html)
- New use cases: BGPlay, Routing Consistency, Reverse DNS Consistency, Address Space Hierarchy and Historical WHOIS



Prefix	In BGP (RIS)	IRRs	RPKI	ROAs
193.0.0/21	✓	RIPE	🟢	✓
193.0.10/23	✓	RIPE	🟢	✓
193.0.12/23	✓	RIPE	🟢	✓
193.0.18/23	✓	RIPE	🟢	✓
193.0.20/23	✓	RIPE	🟢	✓
193.0.22/23	✓	RIPE	🟢	✓
193.230.194.0/24	Unknown	Unknown	🟡	✓
2001610.240.0/42	Unknown	Unknown	🟡	✓
200167c2a8a/48	✓	RIPE	🟢	✓
89.16.100.0/24	Unknown	RIPE	🟡	✓

Covering Prefix	Prefix	Reverse DNS Domain	In RIPE Registry	Check Result	Last Checked
193.0.0/21	193.0.0/24	0.0.193.in-addr.arpa	✓	🟢	2022-03-18 13:47:29
193.0.0/21	193.0.10/24	10.193.in-addr.arpa	✓	🟢	2022-03-18 07:46:20
193.0.0/21	193.0.2/24	2.0.193.in-addr.arpa	✓	🟡	2022-04-04 05:38:08
193.0.0/21	193.0.3/24	3.0.193.in-addr.arpa	✓	🟢	2020-08-07 06:35:12
193.0.0/21	193.0.4/24	4.0.193.in-addr.arpa	✓	🟢	2018-10-31 12:34:37
193.0.0/21	193.0.5/24	5.0.193.in-addr.arpa	✓	🟢	2017-03-30 16:37:04
193.0.0/21	193.0.6/24	6.0.193.in-addr.arpa	✓	🟢	2017-03-30 16:37:03
193.0.0/21	193.0.7/24	7.0.193.in-addr.arpa	✓	🟢	2017-03-30 16:37:07
193.0.10/23	193.0.10/24	10.0.193.in-addr.arpa	✓	🟢	2022-03-16 14:25:16
193.0.10/23	193.0.11/24	11.0.193.in-addr.arpa	✓	🟢	2017-03-30 16:40:52



# RIPEstat



- RIPEstat UI2013 (widget-based)
  - Maintained until feature parity is reached, then open sourced
  - <https://stat.ripe.net/ui2013/>
- Feature Request: Provide additional ROA/VRP information
  - <https://ripestat.featureupvote.com/suggestions/192993/show-all-roas-in-the-prefix-routing-consistency-widget>
  - Added to Prefix and AS Routing Consistency UIs

Prefix ↑	in BGP (RIS)	IRRs	RPKI	ROAs
193.0.0.0/21	✓	RIPE	😊	✓
193.0.10.0/23	✓	RIPE	😊	✓
193.0.12.0/23	✓	RIPE	😊	✓
193.0.18.0/23	✓	RIPE	😊	✓
193.0.20.0/23	✓	RIPE	😊	✓
193.0.22.0/23	✓	RIPE	😊	✓
193.230.194.0/24		unknown	🚫	✓
2001:610:240::/42		unknown	🚫	✓
2001:67c:298::/48	✓	RIPE	😊	✓
86.16.100.0/24		RADB	😞	

# RIPEstat



- Feature Request: Revamp of blocklist feature
  - <https://ripestat.featureupvote.com/suggestions/196464/project-blocklists-2021>
  - Implementation is done, now in contact with blocklist operators to get official permission to add blocklists
  - PoC UI: <https://stat.ripe.net/widget/dns-blocklists>
  - Goal is 20+ blocklists
  - Whitelist feature planned

Blocklist	Operator	Status
Aggregated DNSBL	SORBS	Not Listed
AuthBL	Abusix	Not Listed
Black	Abusix	Not Listed
Dblack	Abusix	Not Listed
DNSBL	Fasthosts	Not Listed
DNSBL	South Korean Network Blocking List	Not Listed
DNSBL	No Solicitado	Not Listed
DNSBL	Passive Spam Block List	Not Listed
DNSBL	Spamcop.net	Not Listed
DNSBL	SPFBL.net	Not Listed
Exploit	Abusix	Not Listed
RATS-ALL	SpamRATS	Not Listed
Spam DNSBL	SORBS	Not Listed
ZEN	SPAMHAUS	Not Listed

# RIPEstat



- Consolidating Data API parameters
  - Ongoing project to make use of Data API easier
  - ETA: Q2 2022 (previously Q1 2022)
- RIPEstat Operations
  - New test framework in place to increase service quality
  - Improved backend and service monitoring
  - Shifting parts of RIPEstat to cloud is in focus for rest of 2022

# RIPEstat



- Michela Galante and Stephen Suess are here at the RIPE meeting to demo/discuss/answer questions about:
  - The UI work that has been done across the organisation
  - With a special focus on RIPEstat



Michela  
Galante



Stephen  
Suess



**RIPE IPmap**

# RIPE IPmap



New: reverse-DNS engine

- Locates hostnames from PTR record
- Geo patterns inferred using sc\_hoiho tool from CAIDA using daily data from IPmap's **latency** (all RIPE Atlas traceroute results) and **worlds** (city information) engines
- Falls back to naive realtime pattern matching to give a last resort result (with lower score)

- 

```
countryCodeAlpha2: "DE"
countryCodeAlpha3: "DEU"
▼ contributions:
  ▼ reverse-dns:
    score: 7
    matchType: "pattern"
    scoreFactor: 3
  ▼ worlds:
    score: 2
    nonulationScore: 2
```



# RIPE IPmap



- Suggestion engine improved to allow engines to learn from each other and improve each other's results
- Development focus moving to improving the crowdsource engine
- Make it easier for the community to improve IPmap, and for crowdsourced contributions to be combined intelligently with the other engines



Christopher  
Amin



**RIPE RIS**

# RIPE Routing Information Service (RIS)



- Updated RIS website
  - [ris.ripe.net](https://ris.ripe.net)
  - [ris.ripe.net/docs](https://ris.ripe.net/docs)
- Peering coordination
  - Actively seeking for "interesting" peers
- New research
  - [Bias in Internet Measurement Infrastructure](#)
- Data improvement prototypes:
  - [Peer metadata](#)
  - [Per-peer MRT dumps](#)
  - Public Kafka (TBA)

Talk to these people in the halls:



Emile  
Aben



Michela  
Galante



Florian  
Obser



# Questions



robert@ripe.net  
@kistel



**Harry, hol schonmal den Wagen!**