



**RIPE NCC**

RIPE NETWORK COORDINATION CENTRE

# **RIPE NCC Tools Update**

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**RIPE NCC**



**Research**

# Articles on RIPE Labs



Some articles from the recent past:

- [Route Collection at the RIPE NCC - Where are we and where should we go?](#)
- [RIPE NCC Internet Country Report: Central Asia](#)
- [Looking Inside Outages with RIPE Atlas](#)
- [Our First Glance at the Belarus Outages](#)
- [IPv6 Adoption Statistics: a Comparison of Different Metrics](#)
- [From REX to RIPEstat: a Look at the Past and the Challenges Ahead](#)
- ... and more on [RIPE Labs](#)



**RIPE Atlas**



# RIPE Atlas is 10 Years Old!

# The Vision



- A collaborative, active measurement network
- Should potentially be on “unprecedented” scale, perhaps with vantage points in *every network*
- Community involvement - the RIPE NCC shouldn't do this alone
- Focus on the “network level” measurements as much as possible
- Create and nurture an ecosystem of contributors and users
- Provide a long-term, sustainable platform

# At 10 Years



- We're at ~11.400 connected probes
  - ~1.350 are v1/v2 (!)
  - ~6.000 are v3
  - ~2.600 are v4
  - ~750 are software
  - ~650 are anchors (about half of these are virtual)
- On average about 25.000 measurements are running
- We cover 177 countries, ~3.700 ASNs
- The “most alive” probe has been up and running for:
  - 9y 318d 16h 28m (and a bit more by now)

# Celebrating 10 Years



- The RIPE Atlas UI will get a significant facelift
  - Expect changes soon after RIPE 81
- We're introducing "birthday presents" for probes
  - Recognising the long-term support from our probe hosts
- We'll be publishing some "tales from the past" and preparing a few other gimmicks
- Organising a RIPE NCC Open House event and a Deployathon
- Please join the RIPE 81 Atlas community room



# After 10 Years



- We plan to make the system more useful to more users
  - Better access to data (simpler, faster, ...)
  - More out-of-the-box support for particular use cases
- Increase value for individual contributors such as probe hosts
- Improve on processes that “help our helpers”
  - E.g. ambassadors and sponsors
- Focus on increased network coverage, if possible
  - Various activities to get probes into more networks

# RIPE Atlas is 10 Years Old!



For more details: see the *Lightning Talk presentation* from Tuesday!

# RIPE Atlas on BigQuery



- We're making RIPE Atlas measurement results available via Google BigQuery
- General purpose data warehouse
  - SQL query language on top
  - great for some types of rapid investigation
  - can be used to build complex analyses, or just heavy filtering prior to local analysis
- Information:
  - <https://github.com/RIPE-NCC/ripe-atlas-bigquery/>
  - <https://labs.ripe.net/tools/>

The screenshot shows the Google Cloud Platform BigQuery interface. The top navigation bar includes the Google Cloud Platform logo, the project name 'Serious Research Project', and a search bar. The left sidebar contains a navigation menu with options like Query history, Saved queries, Job history, Transfers, Scheduled queries, Reservations, and BI Engine. The main area is divided into a 'Query editor' and a 'Query results' section. The 'Query editor' contains a SQL query: 

```
1 select msm_id, count(*) result_count
2 from `ripenc-atlas`.samples.ping
3 group by msm_id
4 order by result_count desc
```

 The 'Query results' section shows a table with 11 rows of data. The table has columns 'msm\_id' and 'result\_count'. The results are as follows:

Row	msm_id	result_count
1	1012	40299
2	1016	40185
3	1015	40102
4	1004	40058
5	1030	40046
6	1009	40038
7	1010	39993
8	1019	39992
9	1005	39924
10	1013	39906
11	1031	39878

At the bottom of the results section, there is a pagination bar showing 'Rows per page: 100' and '1 - 100 of 9206'.

# BigQuery: Project & Datasets

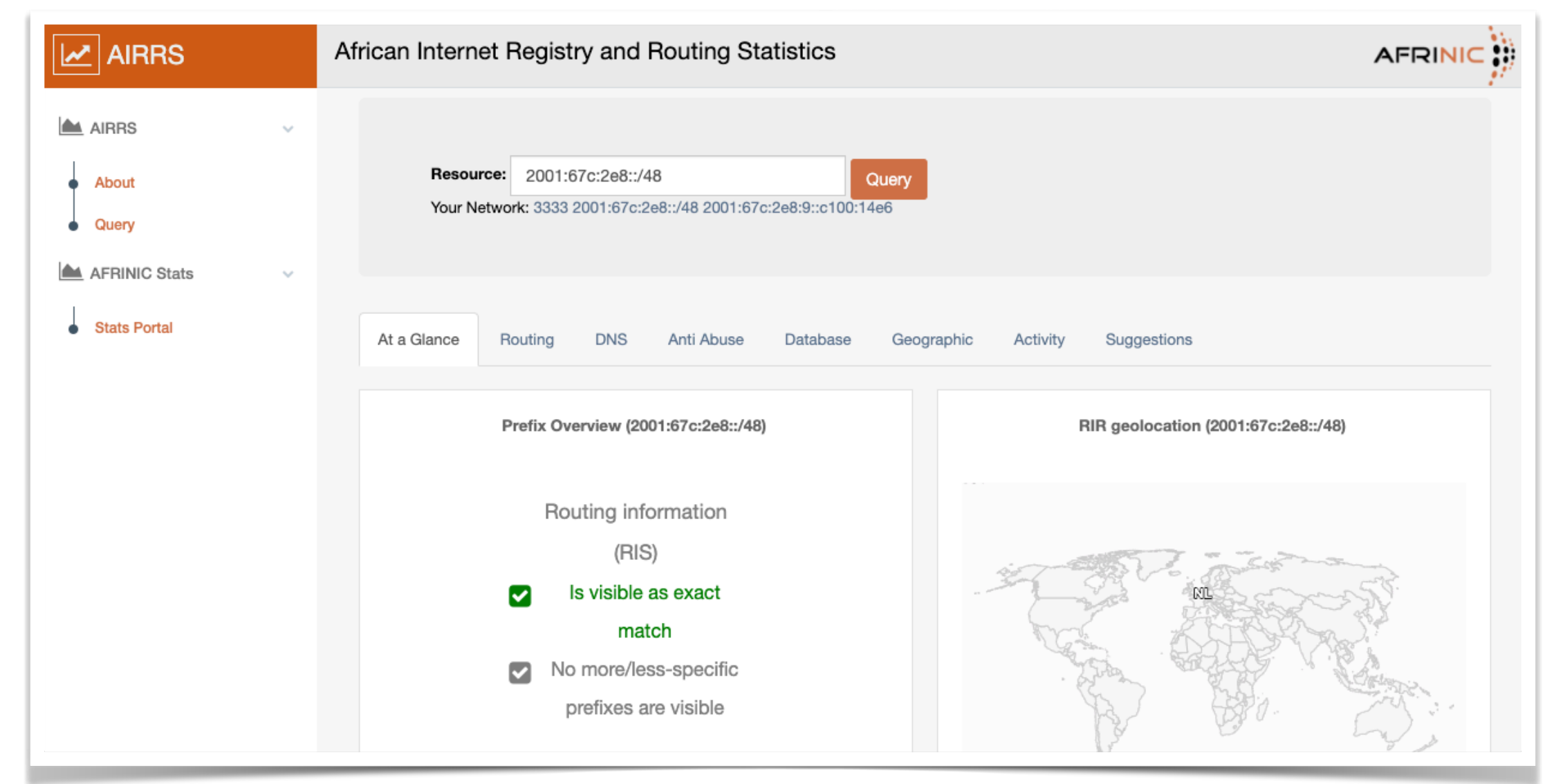
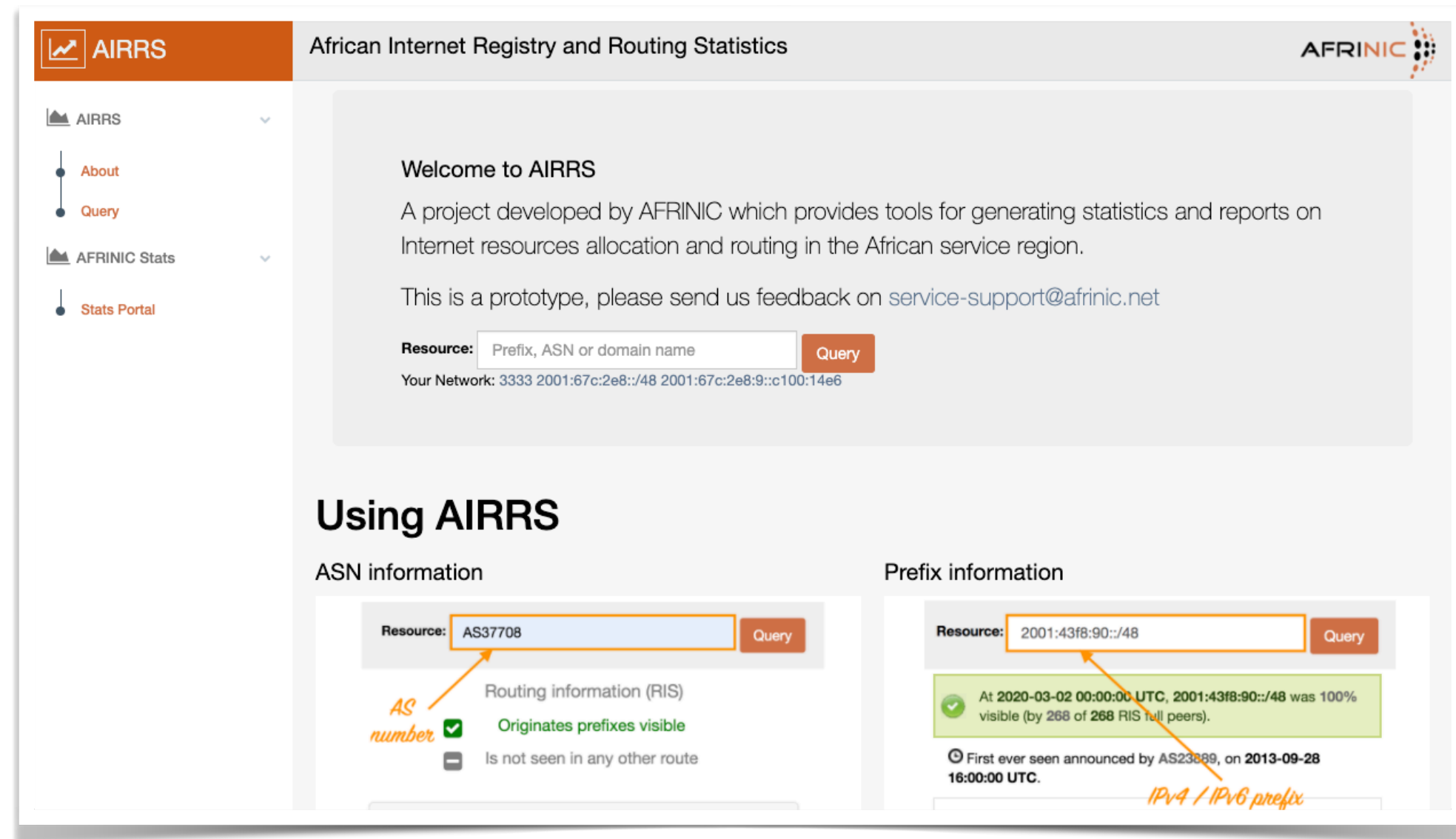


- <https://console.cloud.google.com/bigquery?project=ripencc-atlas>
  - **measurements** dataset:
    - public measurement results for DNS, traceroute, ping, HTTP, SSL, and NTP
    - dataset is current: we're continuously adding new results
    - starting from 1 January 2020; we'll increase the date range as we backfill
  - **samples** dataset:
    - 1% of results from 21 October 2020 for each of the above
    - play with it!
- You need a Google account
  - we're covering storage, the cost of your queries is on you



**RIPEstat**

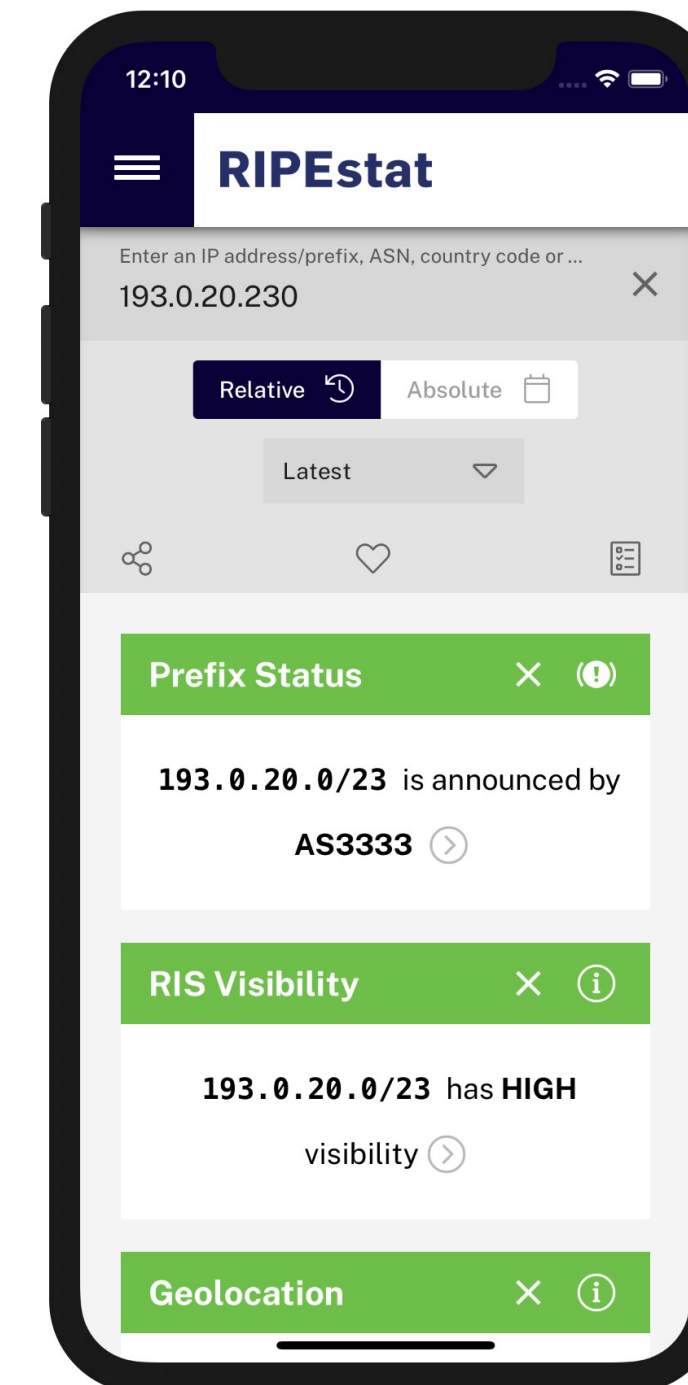
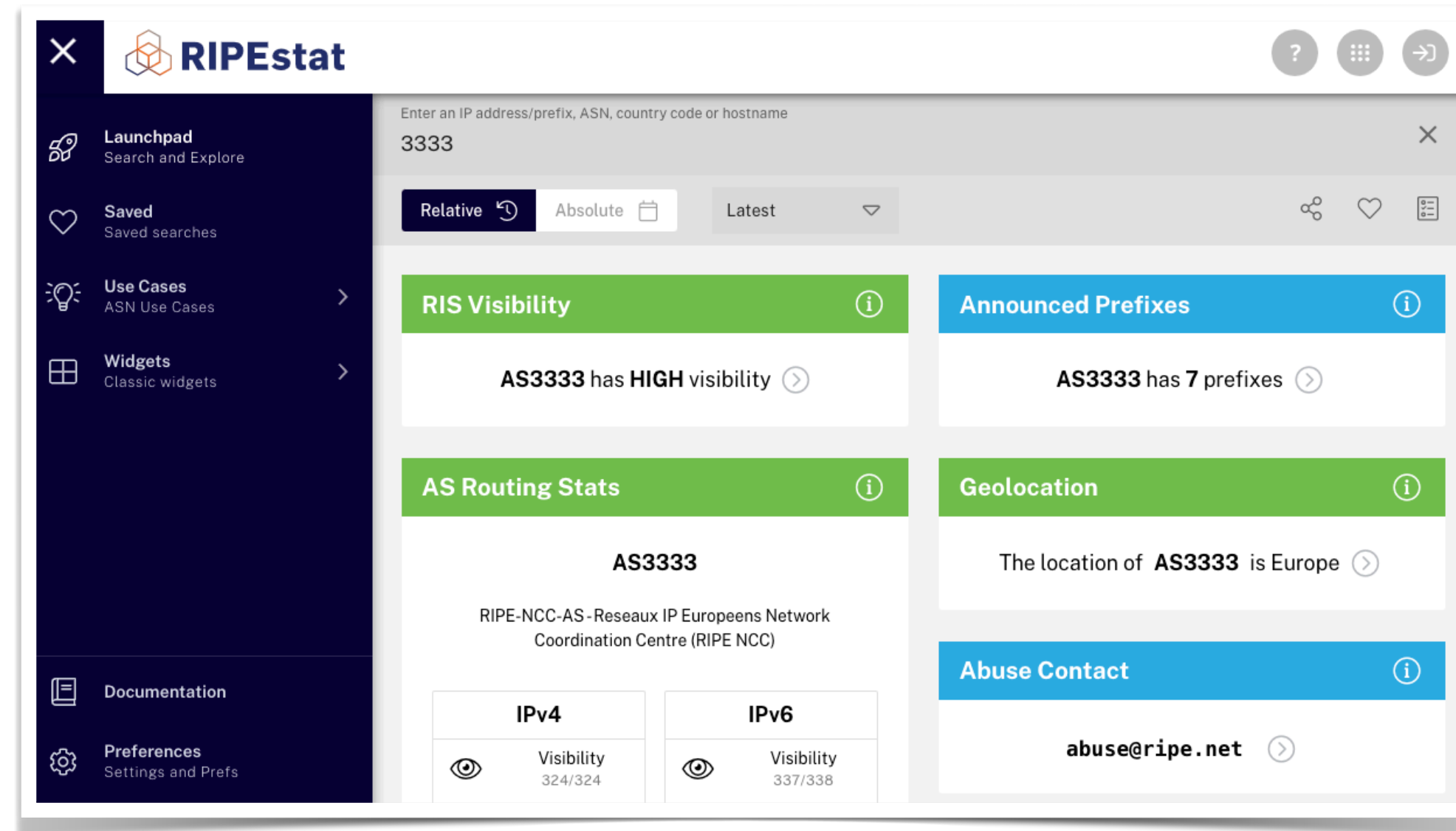
# RIPEstat - RIR Collaboration



- 3rd RIR collaboration with AFRINIC
  - African Internet Registry and Routing Statistics
  - <https://airrs.afrinic.net/>
- In addition to APNIC NetOX and LACNIC Inforedes

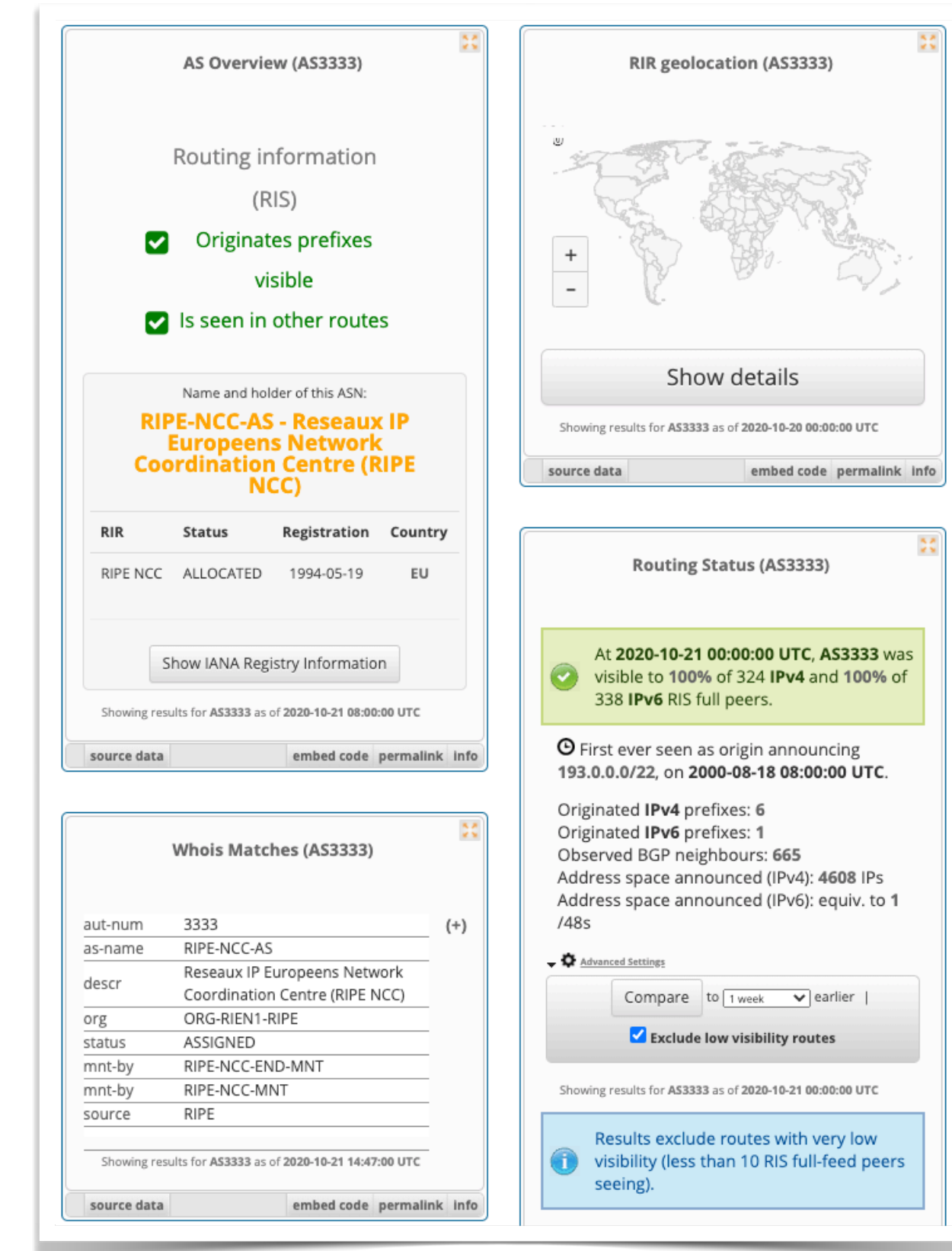
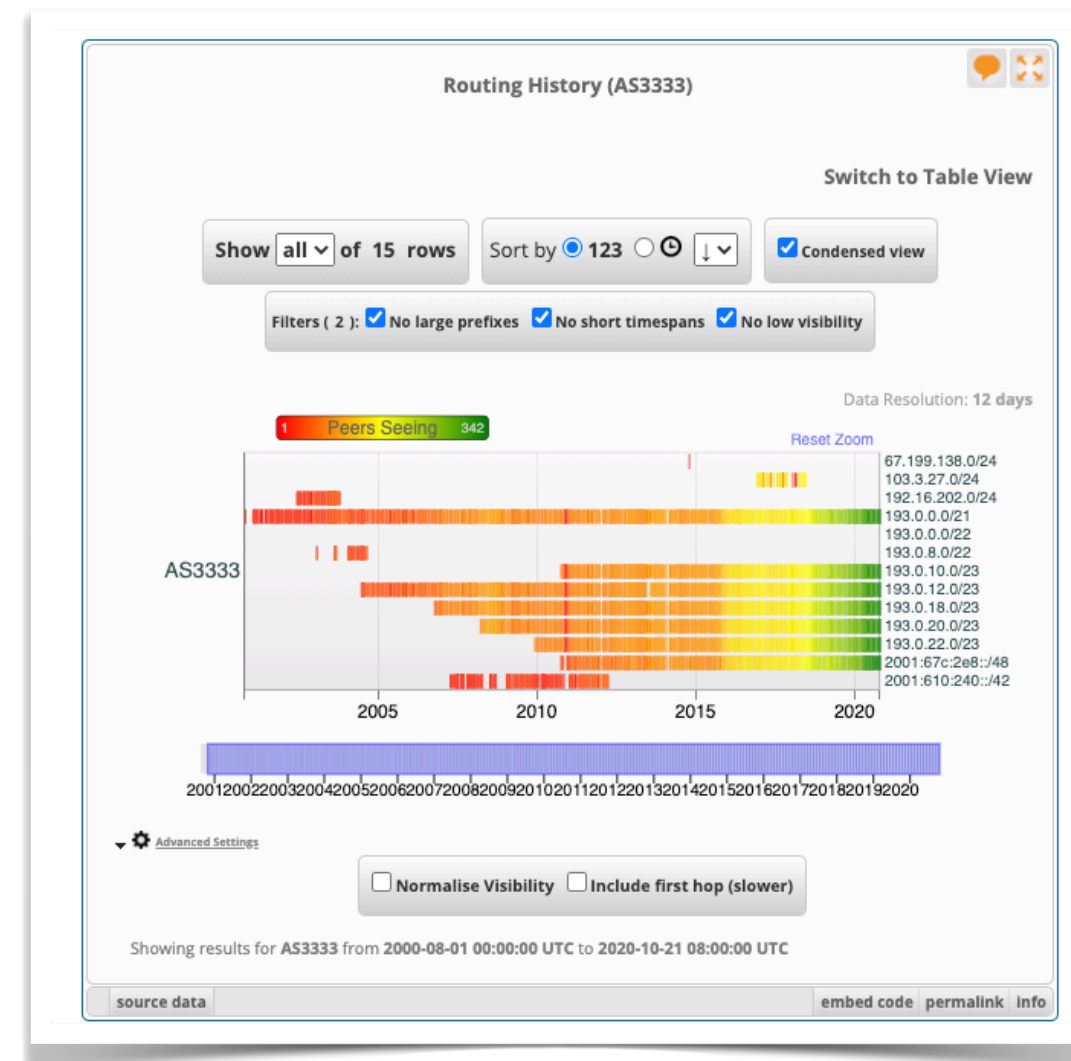
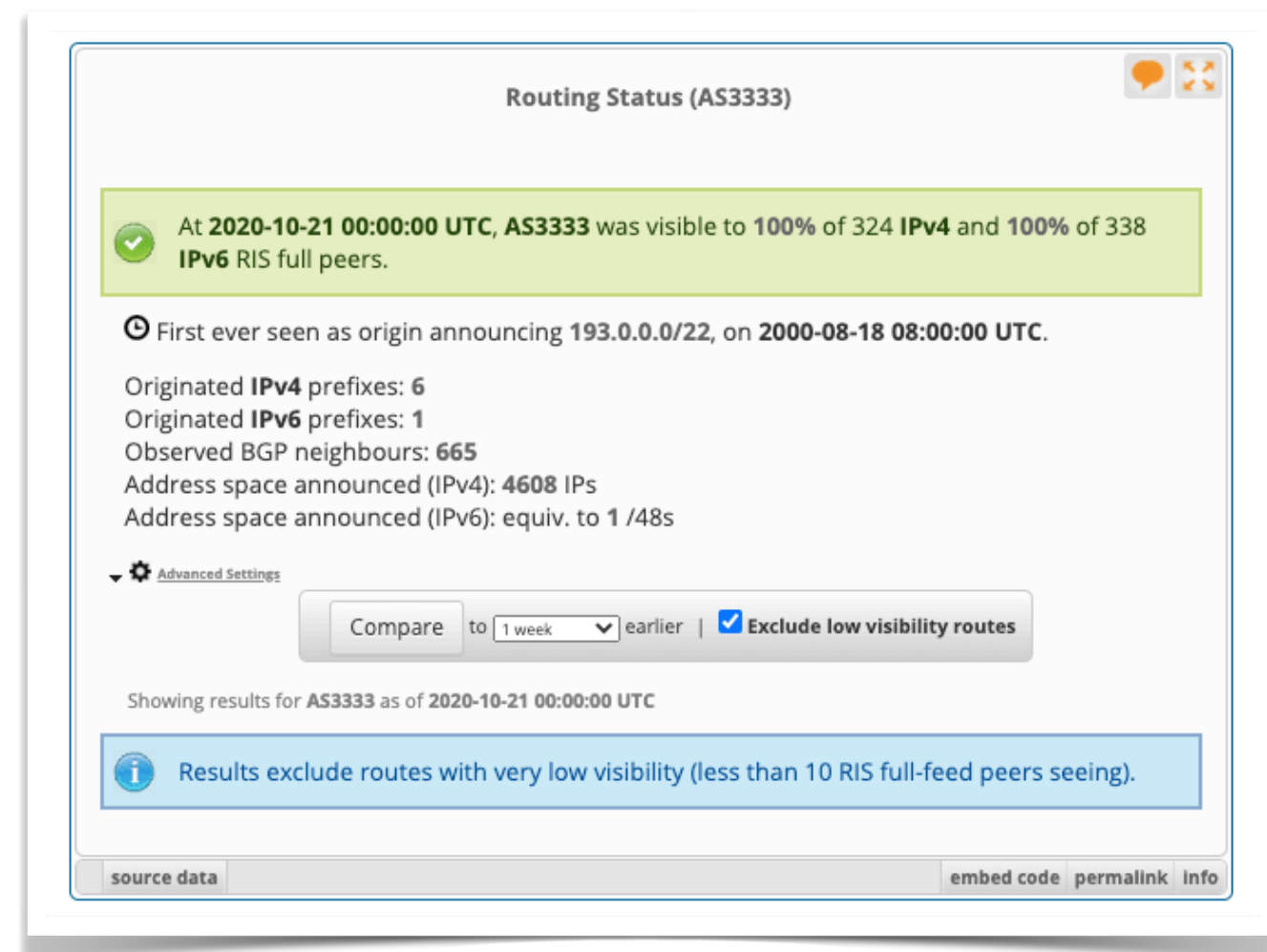


# RIPEstat - UI



- RIPEstat UI 2020
  - Alternative to current RIPEstat UI 2013
  - Demo during RIPE81 - Thursday 12:00 CET in the main room
  - <https://beta-ui.stat.ripe.net/>

# RIPEstat - UI



- RIPEstat Widget API
  - Shared codebase between collaborating RIRs
  - Enables every partner to create new widgets and use them on their platform



# RIPEstat - Feature Update



- Looking Glass
  - Close to realtime now - most peers are available within 30 seconds
  - Meta data on time recency per peer available
- Maxmind GeoLite2
  - Data is available again but not historically due to changes in the license
  - [https://stat.ripe.net/docs/data\\_api#maxmind-geo-lite](https://stat.ripe.net/docs/data_api#maxmind-geo-lite)
  - [https://stat.ripe.net/docs/data\\_api#maxmind-geo-lite-announced-by-as](https://stat.ripe.net/docs/data_api#maxmind-geo-lite-announced-by-as)
- GeoIP/resource information based on RIRStats (*new*)
  - [https://stat.ripe.net/docs/data\\_api#rir-geo](https://stat.ripe.net/docs/data_api#rir-geo)

# RIPEstat - Feature Update



- RPKI History widget (*new*)
  - By AS, trust anchor and country
  - [https://stat.ripe.net/widget/rpki-by-\(as|trust-anchor|country\)](https://stat.ripe.net/widget/rpki-by-(as|trust-anchor|country))
- New widgets developed by APNIC
  - IRR Explorer: <https://stat.ripe.net/widget/apnic-irr-explorer>
  - Abuse Contact Finder: <https://stat.ripe.net/widget/apnic-abuse-contact-finder>
  - Resource Transfer History:  
[https://stat.ripe.net/widget/\(afrinic|apnic|ripe\)-transfer-history](https://stat.ripe.net/widget/(afrinic|apnic|ripe)-transfer-history)
- Addition of NPS as means of feedback

**FEEDBACK**  
powered by Usersnap

How likely are you to recommend our service to a friend or colleague?

0 1 2 3 4 5 6 7 8 9 10  
less likely very likely



# Questions



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