

# RIPE Atlas & RIPEstat

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MENOG 14 - DNSSEC WS

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# RIPE Atlas - Active Measurements Network

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<https://atlas.ripe.net>

- Next-generation Internet measurements network
  - Thousands of measurement vantage points
  - Probes run different measurements: ping, traceroute, SSL, DNS
- Instead of building small, individual, private infrastructures, build a HUGE common infrastructure that serves both private and community goals

# RIPE Atlas Update

- 5000+ active probes
- 7000+ active users worldwide



Source: <https://atlas.ripe.net/results/maps/network-coverage/>

# RIPE Atlas Anchors

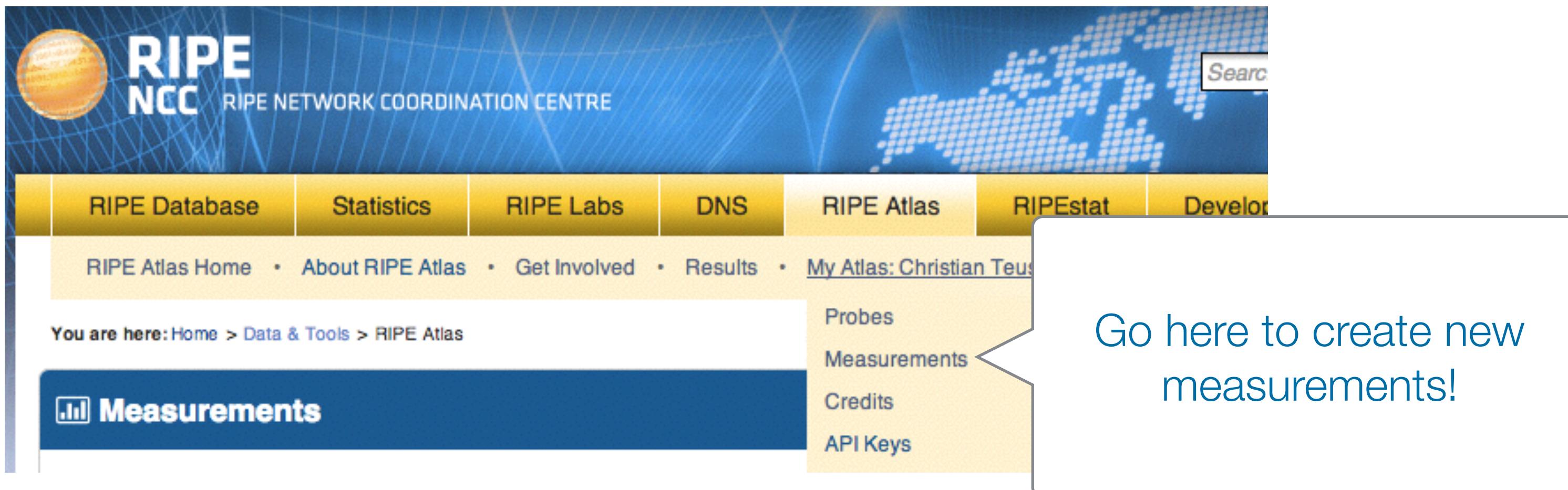
- RIPE Atlas anchors
  - Collecting data as enhanced RIPE Atlas probes
  - Acting as targets for regional measurements
  - Production since October 2013



Source: <https://atlas.ripe.net/contrib/density.html>

# RIPE Atlas - Active Measurements Network

- Requirements
  - Create an account (<https://access.ripe.net>)
  - Host a probe to collect credits to run user-defined measurements
- Go to [atlas.ripe.net](https://atlas.ripe.net)



# Introduction to RIPEstat

- Modular & extendable toolbox
- Single interface for Internet-related data
  - Routing data (collected by RRC network)
  - Registration data
  - DNS data
  - Geolocation data
  - Data collected by Atlas
  - ...
- RIPEstat is driven by user feedback

The screenshot displays the RIPEstat interface with the following panels:

- At a Glance**: A sidebar with links to Routing (5/7), DNS (1/2), Anti Abuse (1), Database (8/9), Geographic (2), and Activity (2).
- Resource Overview (2001:67c:2e8::/48)**: Shows the prefix is announced by AS3333 (RIPE-NCC-AS - Reseaux IP Europeens Network Coordination Centre (RIPE NCC)). It includes a map of the address space and a note that 100.00% of the address space has geographic information.
- Registry Browser (2001:67c:2e8::/48)**: Displays the inet6num entry for 2001:67c:2e8::/48, listing details such as netname (RIPE-NCC-NET), descr (Reseaux IP Europeens Network Coordination Centre (RIPE NCC)), org (ORG-RIEN1-RIPE), country (NL), admin-c (JDR-RIPE), admin-c (BRD-RIPE), tech-c (OPS4-RIPE), and status (ASSIGNED PI).
- Geoloc (2001:67c:2e8::/48)**: A map showing the geographical location of the prefix across continents.
- Routing Status (2001:67c:2e8::/48)**: Notes that 2001:67c:2e8::/48 is 99% visible (by 90 of 91 RIS full peers), first seen on 2010-09-28, originated by AS3333, and has no less-specific covering prefixes.

# Introduction to RIPEstat

- <https://stat.ripe.net>

The screenshot shows the RIPEstat homepage. At the top, there's a search bar with placeholder text "Your network: AS3333, 2001:67c:2e8::/48 e.g.: IPv4 prefix/range, IPv6, ASN". Below the search bar, a message says "RIPEstat is your source for Internet-related stats & status — stat! learn more...". On the right, there's a welcome message for "Christian Teuschel" with a "(sign out)" link. The main content area has two visible widgets: "Resource Overview (AS3333)" which displays "RIPE-NCC-AS - Reseaux IP Europeens Network Coordination Centre (RIPE NCC)" and "Geoloc (AS3333)" which shows a map of Europe with a callout for "Net". To the left, there's a sidebar titled "At a Glance" with four categories: Routing (9/10), DNS (1), Anti Abuse (1), and Database (1).

- RIPEstat Widget API

The screenshot shows a single RIPEstat widget titled "Routing Status (AS3333)". It features a green success message: "AS3333 is visible by 79% of 97 IPv4 and 85% of 91 IPv6 RIS full peers." Below this, there's a note: "First ever seen before Jan 2001." and a summary of statistics: "Originated IPv4 prefixes: 6", "Originated IPv6 prefixes: 1", "Observed BGP neighbours: 76", "Address space announced (IPv4): 4608 IPs", and "Address space announced (IPv6): equiv. to 1 /48s".

- RIPEstat Data API / RIPEstat Text API

<https://stat.ripe.net/data/routing-status/data.json?resource=AS3333>

- **Live Demo**

**<https://stat.ripe.net>**

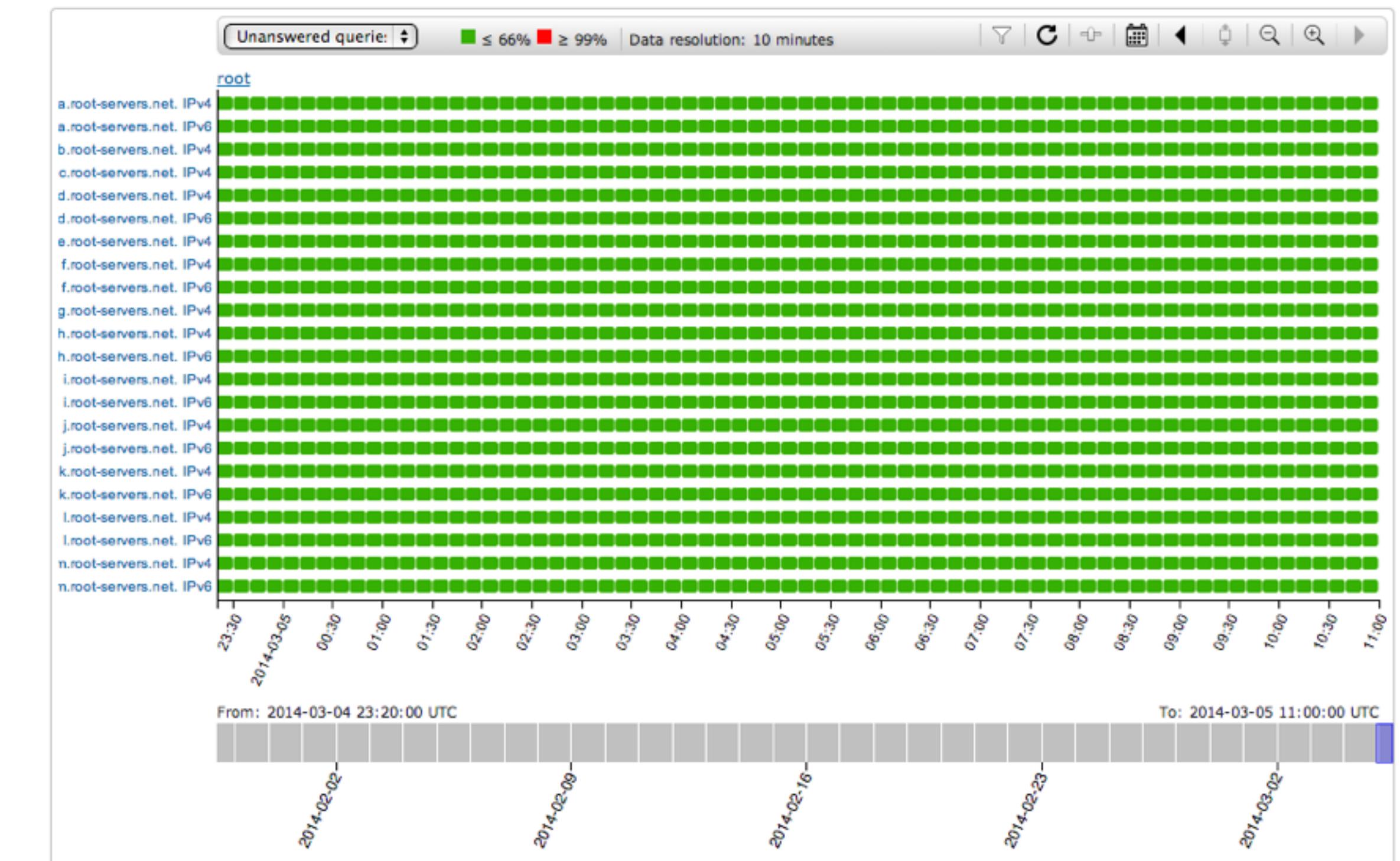
- **Documentations**

**<https://stat.ripe.net/index/documentation>**

# Update on DNSMON

- Measures quality of high-level DNS servers
  - root servers & some TLD servers
- Based on Atlas anchor measurement data
- Current and historical data
- Public beta:

<https://atlas.ripe.net/dnsmon/>



# Feedback

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- RIPE Atlas
  - [atlas@ripe.net](mailto:atlas@ripe.net)
- RIPEstat
  - [stat@ripe.net](mailto:stat@ripe.net)
- DNSMON
  - [dnsmon@ripe.net](mailto:dnsmon@ripe.net)
- Past/Current/Future Developments
  - <http://roadmap.ripe.net/>

