RIPE Atlas

ENOG4

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RIPE Atlas

- RIPE Atlas: a network of active probes measuring the Internet infrastructure in real-time
- Started in 2010
- **1900** running probes in 104 countries
- 3600 users, **1356** LIRs!
- IPv4 980 ASNs, 1500 prefixes
- IPv6 330 ASNs, 420 prefixes

https://atlas.ripe.net

RIPE Atlas: Current Status

- Data collected from built-in measurements available to **everyone**
  - ➢ in forms of maps, tables, downloadable raw data from public probes

- User Defined Measurements (UDM) in 4 flavors available
  - ➢ Ping, Traceroute, DNS, SSL Certs: https://atlas.ripe.net/udm
  - ➢ New interface for constructing UDMs
  - ➢ Execution of multiple measurements in parallel

- Download measurement results without having to be logged in
  - ➢ You can share measurements results with colleagues, or the world, securely
 - ➢ Generate your API Keys and use it in URL query string

RIPE Atlas: Current Status

- New map: comparing TCP/UDP DNS measurements

  - https://labs.ripe.net/Members/bwijnen/tcp-udp-dns-soa-rt-ratio

- Internal improvements of resiliency and stability

- Integrated with RIPE NCC SSO

  - Everyone who has RIPE NCC account can use public data without hosting a probe

- The application procedure for **hosting** the Atlas probe made easy

  - Go now to https://atlas.ripe.net/apply

  - Get it today!

RIPE Atlas: More Value for RIPE NCC Members:

- Out of 3600 users, **1356** are LIRs!

- One-click measurement "**Test your IPv6**"

  - ➢ interactive visualization of traceroute results

  - ➢ https://labs.ripe.net/Members/becha/test-your-ipv6-reachability-using-ripe-atlas

  - ➢ https://labs.ripe.net/Members/emileaben/visualise-your-ipv6-connectivity-using-ripe-atlas
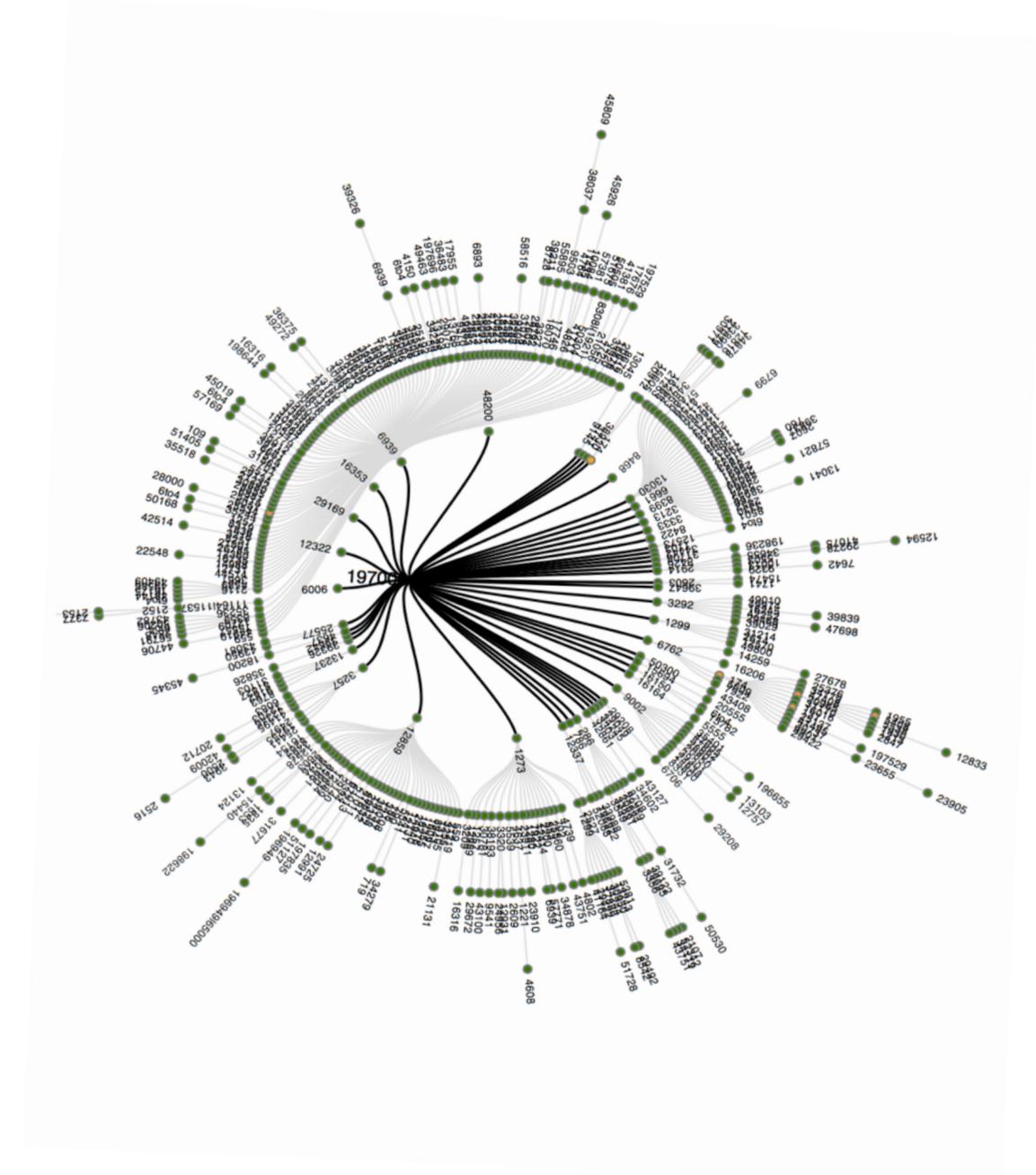
RIPE Atlas: More Value for RIPE NCC Members

- Introducing RIPE Atlas Anchors

  https://labs.ripe.net/Members/dfk/ripe-atlas-anchors

  ➢ Powerful probes and well-known targets

  ➢ Topological diversity for built-in measurements

  ➢ Enabling only ping and traceroute towards AA

  ➢ Traceroute visualisation available to AA hosts

  ➢ Adding DNSMON SW to the Atlas Anchors

  ➢ Pilot starting now

  ➢ Goal: ~50 deployed in 2013

  ➢ Looking for potential hosts

RIPE Atlas: Future outlook

- Increasing overall probe uptime

- New and more powerful probes.

- Lifting the system usage limits

- Introducing "fast track" measurements

- Improving the presentation layer

- Integration with RIPEstat

  ➢ Custom views, widgets

https://labs.ripe.net/Members/becha/ripe-atlas-roadmap-september-2012-update

RIPE Atlas: Sponsors

New sponsors:
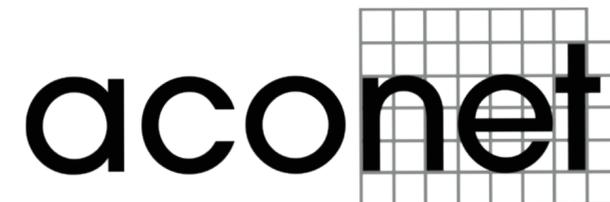
RIPE Stat

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Introduction to RIPEstat

- Modular & extendable toolbox

- Single interface to Internet related data

  ➢ Routing data

  ➢ Registration data

  ➢ Geolocation data

  ➢ …

- For:

  ➢ Network trouble-shooting

  ➢ Data analysis

  ➢ Scientific research

https://stat.ripe.net

Using RIPEstat

- How can you use it?
  - ➤ data API
    - ➤ scriptable API with pure data
    - ➤ different format: json, yaml

https://stat.ripe.net/data/geoloc/data.json?resource=AS6412
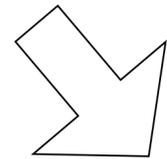
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    "locations": [
        {
            "city": "",
            "country": "AE(US)",
            "covered_percentage": 0.53379855360053385,
            "latitude": 0.0,
            "longitude": 0.0,
            "prefixes": [
                "168.187.0.0/16",
                "168.187.0.0/18",
                "168.187.64.0/18"
            ]
        },
        {
            "city": "",
            "country": "KW",
            "covered_percentage": 99.466201446399467,
            "latitude": 29.34,
            "longitude": 47.659999999999997,
            "prefixes": [
                "80.184.0.0/17",
                "161.252.0.0/16",
                "168.187.0.0/16",
                "168.187.0.0/18",
                "168.187.0.194/32",
                "168.187.32.0/19",
                "168.187.57.61/32",
                "168.187.64.0/18",
```

Using RIPEstat

- How can you use it?
  - ➤ widgets
    - ➤ Visualisations powered by the data API
    - ➤ On stat.ripe.net or embeddable on any other webpage
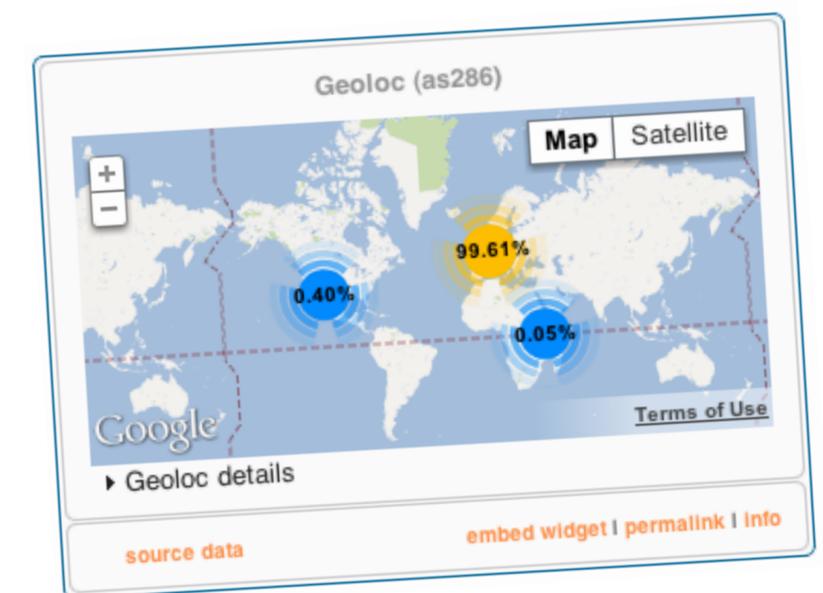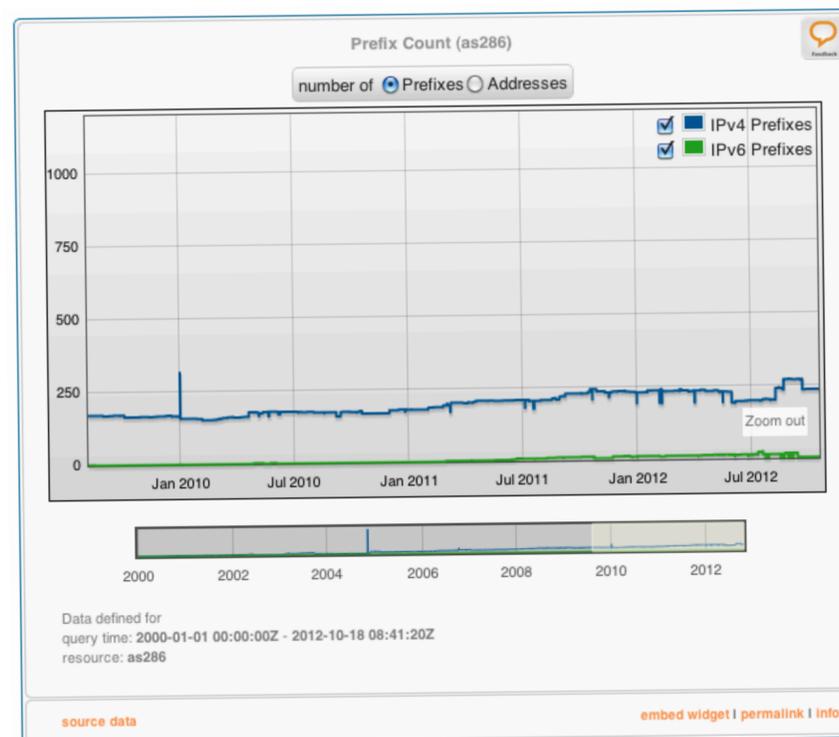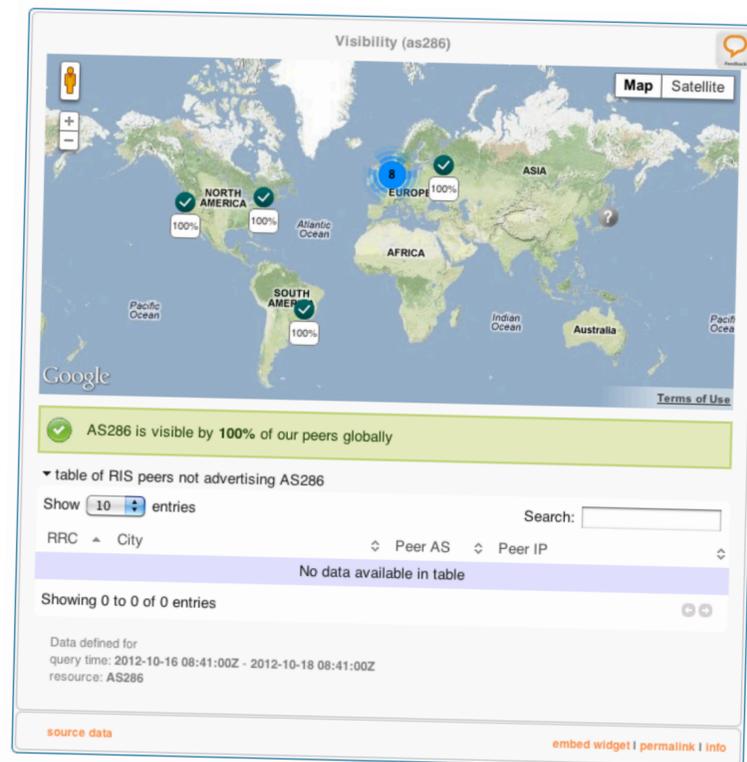
Using RIPEstat

- How can you use it?

  ➢ Command Line Interface (CLI)

  ➢ Mobile App

Future Outlook

- Atlas data in RIPEstat

- Country-based results

- Migration of RIPE NCC tools, e.g.:
  - ASInuse
  - PrefixInUse
  - ISAlarms
  - BGPViz
  - …

Discussion/Feedback

- RIPE Atlas and RIPEstat are your tools:

  ➢ Development driven by user feedback

- Get Involved

  ➢ RIPE Atlas

    ➢ Write to atlas@ripe.net

    ➢ Visit https://atlas.ripe.net

  ➢ RIPEstat

    ➢ Use the comment feature and stat.ripe.net/feedback

    ➢ Write to stat@ripe.net

    ➢ Twitter (#ripestat)

Q & A