

RIPE Atlas News

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Community Builder for
Measurement Tools
RIPE NCC



- Probe hosts, ambassadors, users, sponsors, developers... THANK YOU!
 - Three sponsors so far in 2015
 - 230 ambassadors at countless conferences
 - Tons of code on GitHub (and teaching material too!)
- Change in the probes distribution strategy
 - One probe per ASN
 - Focusing on RIPE NCC members without probes
 - Cooperation with other RIRs to reach out to their members
 - Only buying probes using sponsorship money

- Total:
 - 8.200+ active probes, 14.000 distributed, 1.000 written-off
 - 120 active anchors, 200 applications ever
 - 20.000 users ever, about 2.000 active users monthly
 - almost 1.000.000 measurements in total!!!
- Growth:
 - One anchor activated, two new applications every week
 - 50 probes activated, 100 probes shipped per week
 - 35.000 user-defined measurements weekly

- New measurement types: NTP, TLS
- Data streaming: results & probe connection status
- Better UIs and APIs
- Probe tagging
- Interesting use cases
 - Are the local paths staying local? What is the impact of IXPs? IXP-country-Jedi
 - Visualising network outages
 - Many more at [hackathon](#)

- New measurement types
 - http measurements towards anchors
 - WiFi probe
- APIs for anchors, anchoring measurements
- Data streaming access to historical data
- Improve on OpenIPMap
- Security review
- Webinar coming up this summer
- Expansion goals: 150 anchors, 10,000 active probes

<http://roadmap.ripe.net/ripe-atlas/>

- Mailing list: ripe-atlas@ripe.net
- Blog: <https://labs.ripe.net/atlas>
- Twitter: [@RIPE_Atlas](https://twitter.com/RIPE_Atlas)
- Tickets: atlas@ripe.net
- Everything: <https://atlas.ripe.net>

Questions?



Probes

Filter by id/asn/location/country/description

Connected

IPv4/v6

Any Country

⌵

✕

My Probes

My Favourites

My Hidden Probes

My Sponsored Probes

My Ambassadors Probes

Public Probes

All

Id	ASN v4	ASN v6	Country	Description
22625	5607			Rural ADSL (soon upgrading to fibre)
22620	11426			118 Timber Hitch v3
22617	38229			PGIM, University of Colombo
22616	6697			
22613	6697			Moroz's probe
22609	58445			Dutch-Bangla Bank Limited
22608	6079			NY probe
22604	54858	54858		jvo seattle
22603	58381			Wowrack Indonesia
22591	6830	6939		Home Berg

Probe #10001

General

Network

Built-in Measurements

User-defined Measurements

General Information

Edit

Id

10001

MAC Address

F8:D1:11:A9:F0:90

Architecture

tl-mr3020

Host

Robert Kistelevi

Sponsor

RIPE Atlas

Firmware Version

4680 ()

Router Type

ASUS RT-N66U

Bandwidth Limit

20 Kbit/s

DNS Entry

Off

Shared Publicly

Yes

User Tags

Cable

Home

NAT

System Tags

V3

Resolves A Correctly

Resolves AAAA Correctly

IPv4 Works

Connection & Traffic

Edit

Bits/s

Packets/s

Connected Time

4 days, 16 hours

Update Location

Management Sharing

Edit

Notifications

Edit

- See <https://atlas.ripe.net/probes/>

Measurements

[+ Create a Measurement](#)

Filter by target and/or description

Any Status

IPv4/v6

All types

Of all time

T

X

My Measurements

My Favourite Measurements

My Hidden Measurements

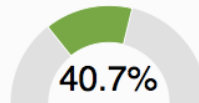
Pu

Id	Type	Target	Description
1911668	☐ anna maria mandalari	IPv4 http 163.117.253.7	HTTPGet port 7443 w subset 9 of 200 probe
1911667	☐ anna maria mandalari	IPv4 http 163.117.253.7	HTTPGet port 7443 w subset 8 of 200 probe
1911666	☐ anna maria mandalari	IPv4 http 163.117.253.7	HTTPGet port 7443 w subset 7 of 200 probe
1911665	☐ anna maria mandalari	IPv4 http 163.117.253.7	HTTPGet port 7443 w subset 6 of 200 probe
1911664	☐ anna maria mandalari	IPv4 http 163.117.253.7	HTTPGet port 7443 w subset 5 of 200 probe
1911663	☐ anna maria mandalari	IPv4 http 163.117.253.7	HTTPGet port 7443 w subset 4 of 200 probe
1911662	☐ automat atlas	IPv4 ping no-osl-as39029.anchors.atla...	ATLAS Self-test N8
1911661	☐ FANOU Roderick	IPv4 trace... 41.206.64.93	UDP Af-tr4 to 41.206.64.93 id:Gg_cache_in_AF...
1911660	☐ anna maria mandalari	IPv4 http 163.117.253.7	HTTPGet port 7443 w subset 3 of 200 probe

Create a New Measurement

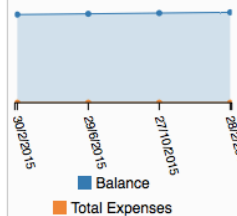
Costs summary

Daily cost: 300 credits



By scheduling this measurement, your total daily consumption will be 40.7% of your daily income

You will not run out of credits in a year



Step 1 Definitions

[> Ping measurement to www.caida.org](#)[+ Ping](#)[+ Traceroute](#)[+ DNS](#)[+ SSL](#)[+ HTTP](#)

Step 2 Probe Selection

Worldwide

50

[+ New Set - wizard](#)[+ New Set - manual](#)[+ IDs List](#)[+ Reuse a set from an old measurement](#)

Step 3 Timing

This is a One-off: ☒

Start time:

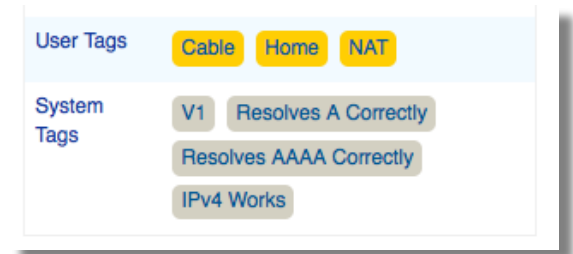
Now

Measurement API Compatible Specification

```
$ curl --dump-header - -H "Content-Type: application/json" -H "Accept: application/json" -X POST -d { "definitions": [
```

- See <https://atlas.ripe.net/measurements/>

- Users can tag their probes **any way they like**
 - The commonly used tags are available to everyone
- The **system** also tags them **automatically**:
 - (Non)working IPv6, IPv4, DNS (A/AAAA)...
- **Use these tags** when scheduling measurements:
 - Measure from home or data centre probes
 - Measure from broken or working IPv6 probes
 - Combine this with other filters (eg. country)
- See <https://atlas.ripe.net/docs/probe-tags/>

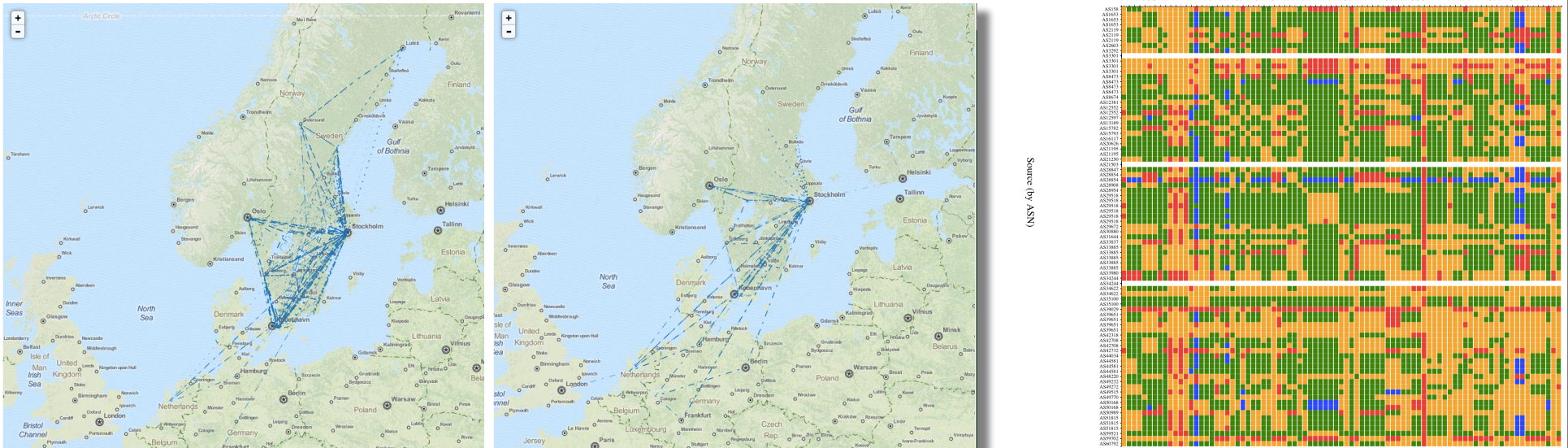


- NTP: query Network Time Protocol (NTP) servers
 - https://labs.ripe.net/Members/philip_homburg/ntp-measurements-with-ripe-atlas
- TLS check
 - Check for protocols, ciphers, certificates...

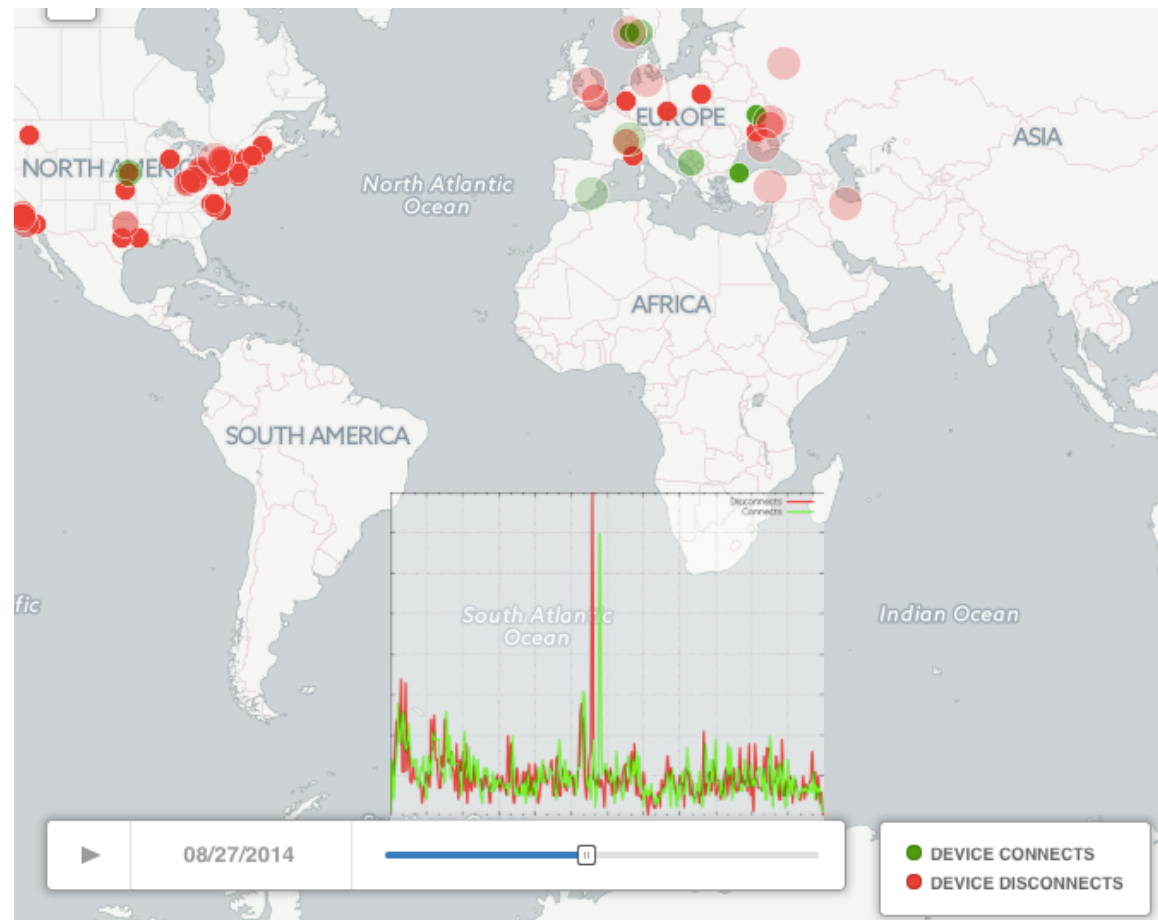
- Measurement API:
 - Query/search, create, change, stop, ...
 - Download results, latest results, state checks, ...
 - **Parse results:** <https://atlas.ripe.net/docs/sagan/>
- Probe API: query/search, probe archive (bulk access)
- **Result streaming:** results and probe connections
- See <https://atlas.ripe.net/docs/>

- Data result streams
 - Real-time access to data (“drinking from the firehose”)
 - Can listen to the incoming data of public msms(s)
 - WebSocket clients + legacy support using polling
 - Allows for really cool visualisations
 - Has short-term memory and can also **replay historical data**, optionally at faster or slower speed (bullet time for RIPE Atlas data - yay!)
- Probe connection streams
 - Similar to results, but about probe connections/disconnections
 - Annotated by ASN/prefix/country...
- See <https://atlas.ripe.net/docs/result-streaming/>

- IXP-Country-Jedi



- <https://labs.ripe.net/Members/emileaben/measuring-ixps-with-ripe-atlas>
- <https://labs.ripe.net/Members/emileaben/measuring-countries-and-ixps-in-the-see-region>
- <https://github.com/emileaben/ixp-country-jedi>
- <https://github.com/RIPE-Atlas-Community/openipmap>



- https://labs.ripe.net/Members/andreas_strikos/amsterdam-power-outage-as-seen-by-ripe-atlas
- <https://labs.ripe.net/Members/emileaben/visualising-network-outages-with-ripe-atlas>
- <https://labs.ripe.net/Members/emileaben/facebookdown-and-what-internet-data>

- HTTP
 - Against predefined targets (anchors) to start with
- WiFi
 - Note that this is **not** running the probes using WiFi, but authenticating, measuring things, then disconnecting, **while** being connected on a wire
 - Most likely with a new hardware probe