RIPE Atlas News

Vesna Manojlovic
Community Builder for
Measurement Tools
RIPE NCC

Community news

- 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

Growth in the last six months

- 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 features

- 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

Plans for the rest of the year

- 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/

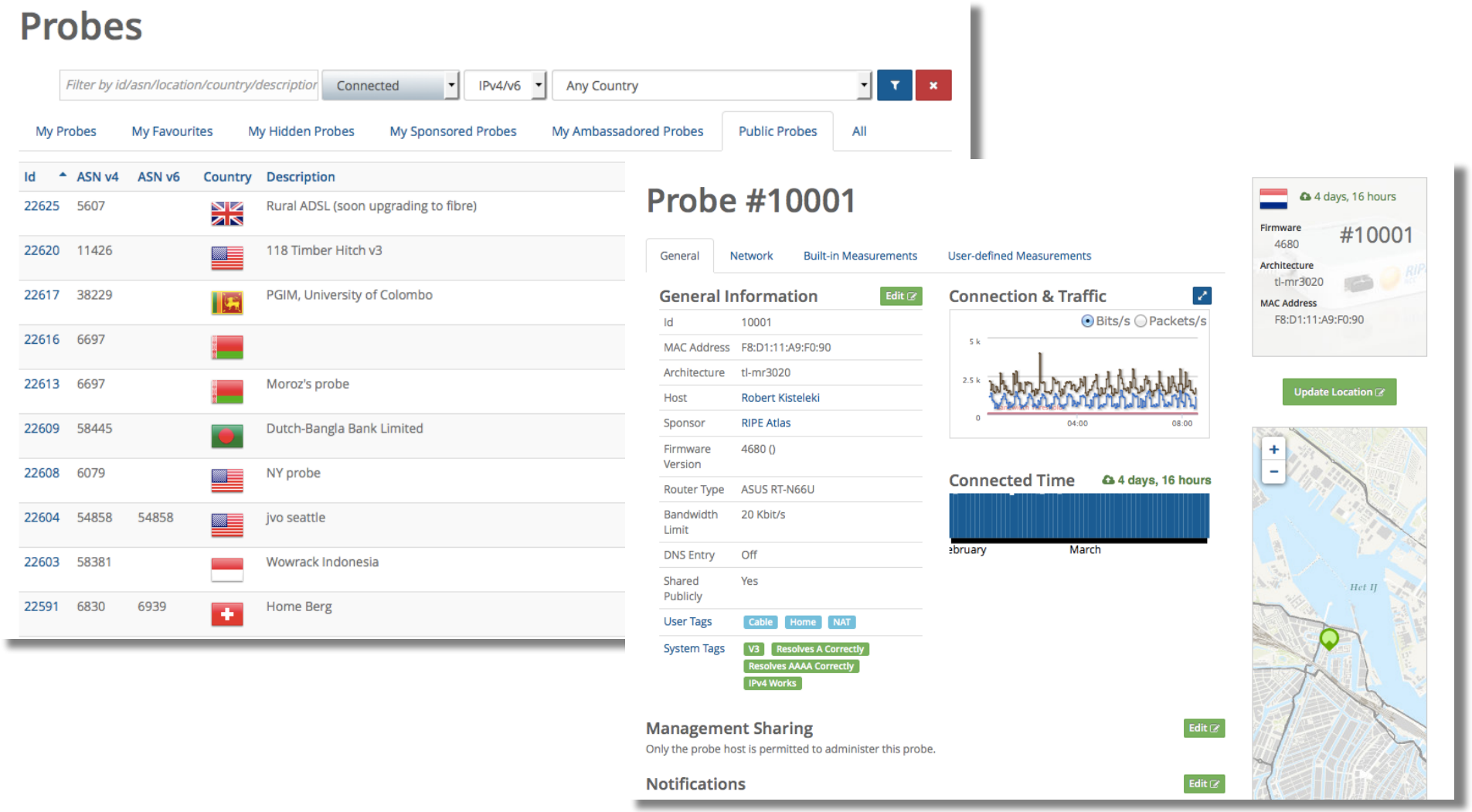
Learn more and get in touch

- Mailing list: ripe-atlas@ripe.net
- Blog: https://labs.ripe.net/atlas
- Twitter: @RIPE_Atlas
- Tickets: atlas@ripe.net
- Everything: https://atlas.ripe.net

Questions?

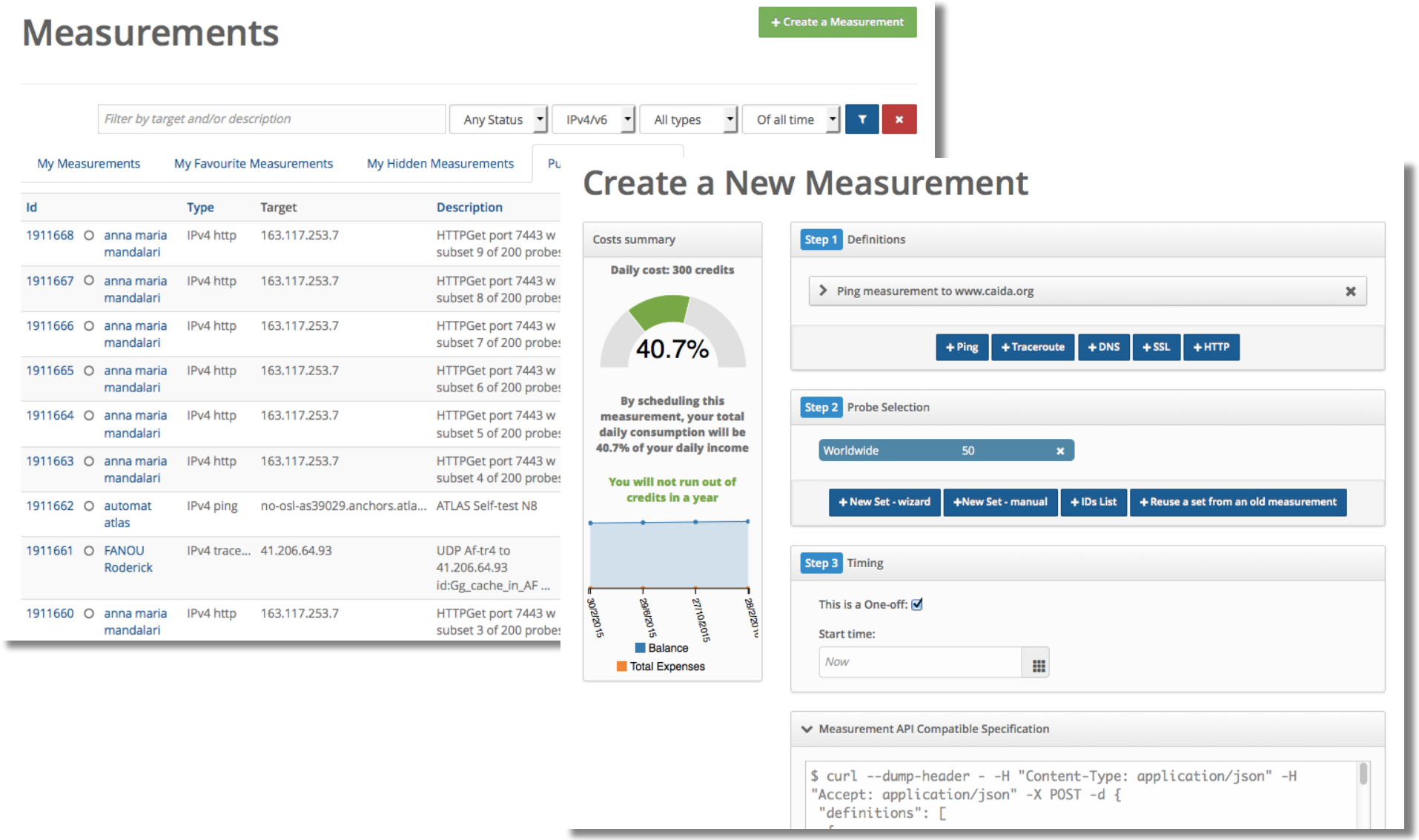
More details

Better probe UI



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

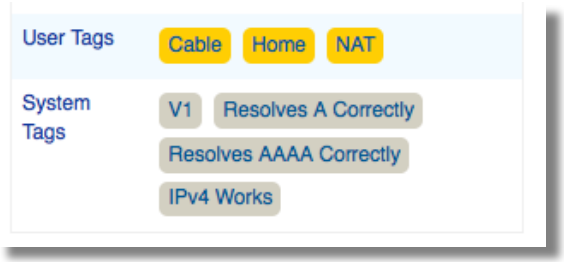
Better measurement UI



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

Using probe tags

- 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/

New measurement types

- 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…

APIs, APIs, APIs

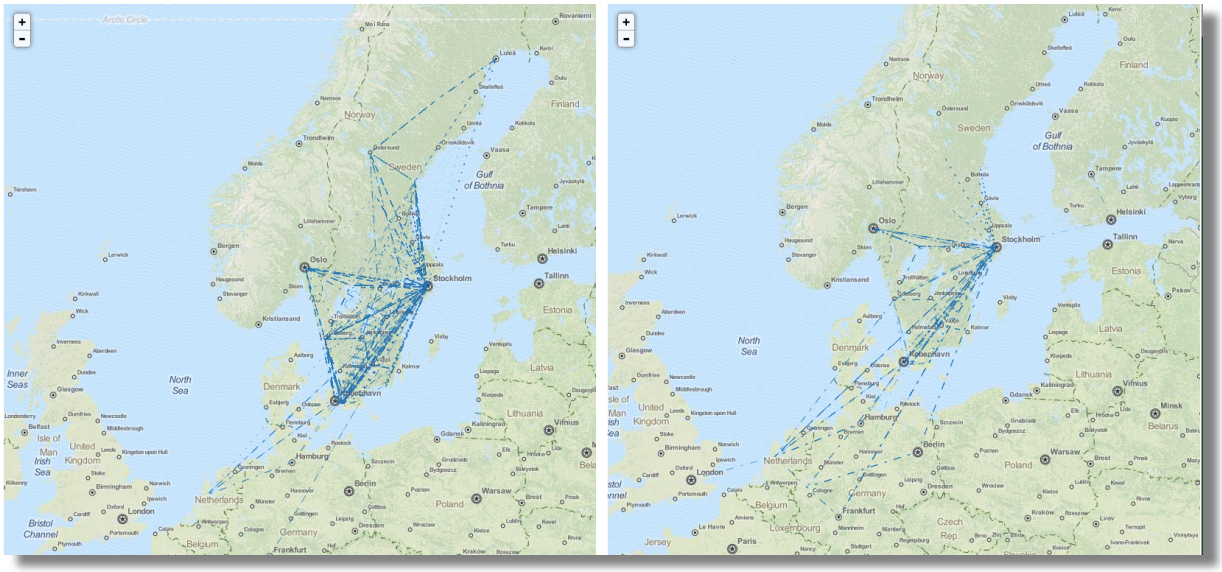
- Measurement API:
  - Query/search, create, change, stop, …
  - Download results, latest results, state checks, …
  - **Parse results**: https://atlas.ripe.net/docs/sagan/
- Probe API: query/search, probe archive (bulk access)
- **Result streaming**: results and probe connections
- See https://atlas.ripe.net/docs/

Data streaming APIs

- 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/

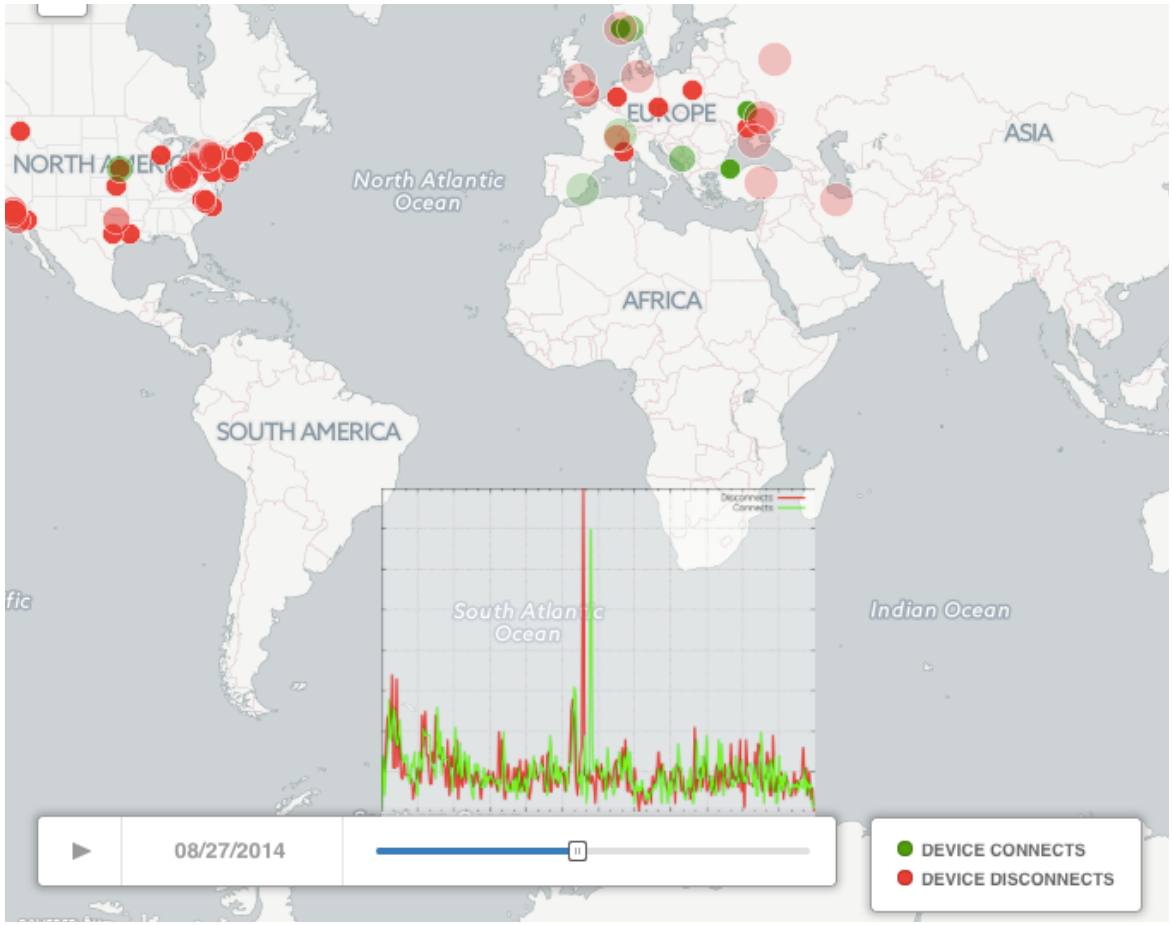
Are local paths staying local?

- 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

Visualising network outages



- 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

Upcoming measurements types

- 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