RIPE Atlas Update

MAT-WG, RIPE 67, Athens, October 2013

Vesna Manojlovic
@Ms_Measurements

RIPE
NCC

RIPE Atlas Deployment
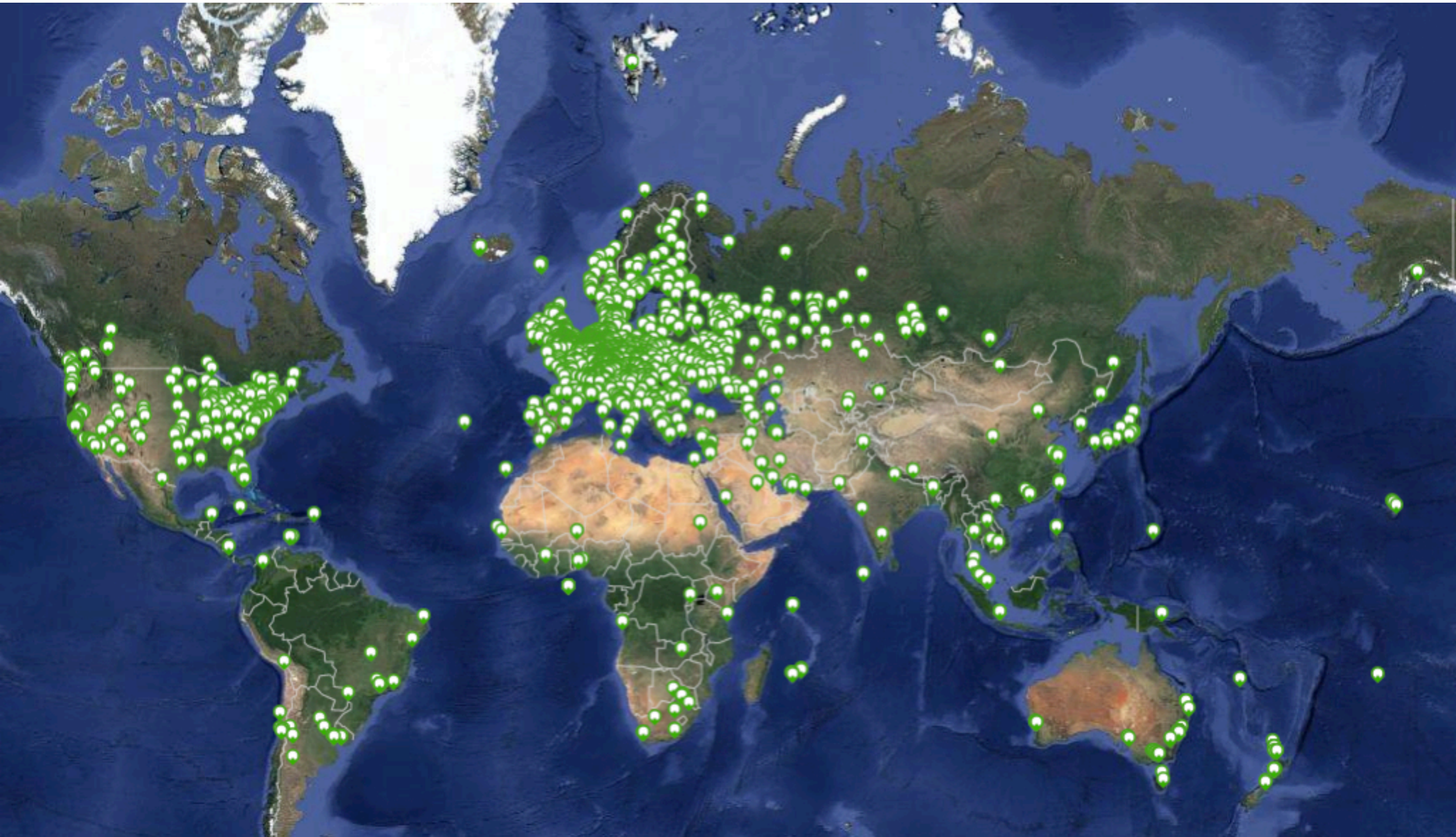
RIPE
NCC

RIPE Atlas: October 2013

- 4,000+ probes up and active
  - (1000 more since RIPE66!)

- 8,600+ registered users

  3,500+ users are from LIRs

- Four types of customised measurements available to **probe hosts** and **RIPE NCC members**: ping, traceroute, DNS, SSL

RIPE Atlas Participation and Benefits

- Anyone can become a RIPE Atlas probe host

- Major personal and operational benefit:
  See your network from the outside!
  - Have at your fingertips ~4,000 external vantage points to do customised measurements towards the destination of your choice

- Data of built-in measurements available to **everyone**
  - Maps, data from public probes, API to download raw data

RIPE
NCC

Measurement Devices

- v1 & v2: Lantronix XPort Pro

- v3: TP-Link TL-MR3020 powered from USB port
  - Does not work as a wireless router!
  - **Same functionality as the old probe!**

- New RIPE Atlas Anchor: Soekris net6501-70

Visible via RIPEstat: 53 probes in Greece

RIPE Atlas News

RIPE Atlas Anchors

- Anchors: well-known targets and powerful probes
  - Regional baseline & "future history"
- 15 anchors installed
- Anchoring measurements
  - Full-mesh between anchors deployed
  - Coming up: each probe will measure 4-5 anchors
- **Production service launching today!**
  - cheaper box, one-service only
  - TTM to be decommissioned
- Apply: https://atlas.ripe.net/about/anchors/

RIPE Atlas: Recent Developments

- Seismograph
  - Multiple ping measurements in one view
  - Stacked chart and an interaction control panel
  - Based on RIPEstat widget framework

- Zoomable ping graph
  - Replacing multiple RRDs graphs: zoom-in, zoom-out in time, in the same graph, without loss of detail
  - Easier visualisation of details of an event
  - Selection of RTT class (max, min, average)

- New release of firmware (4550)

The Seismograph
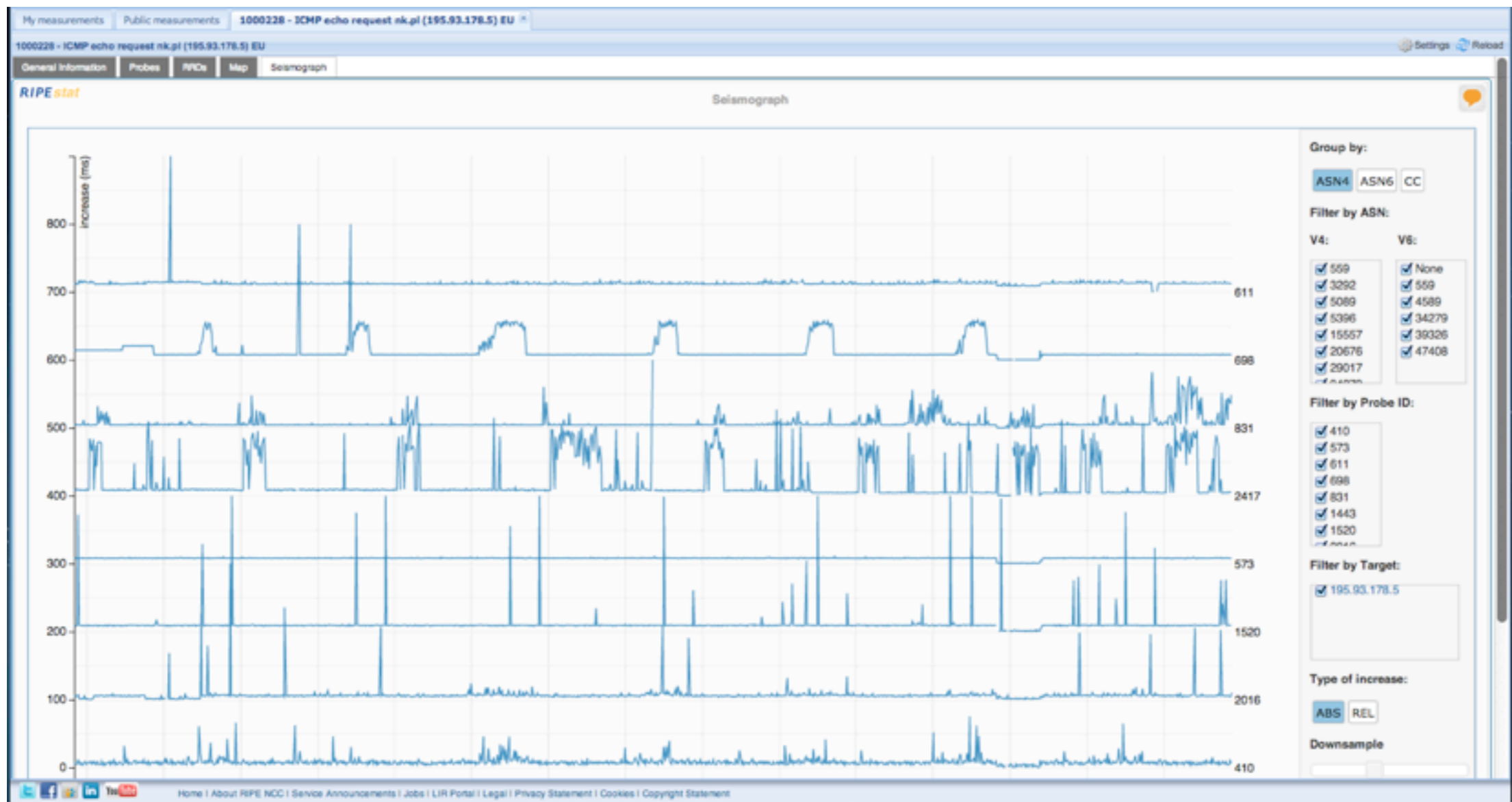
Zoomable Ping Graph
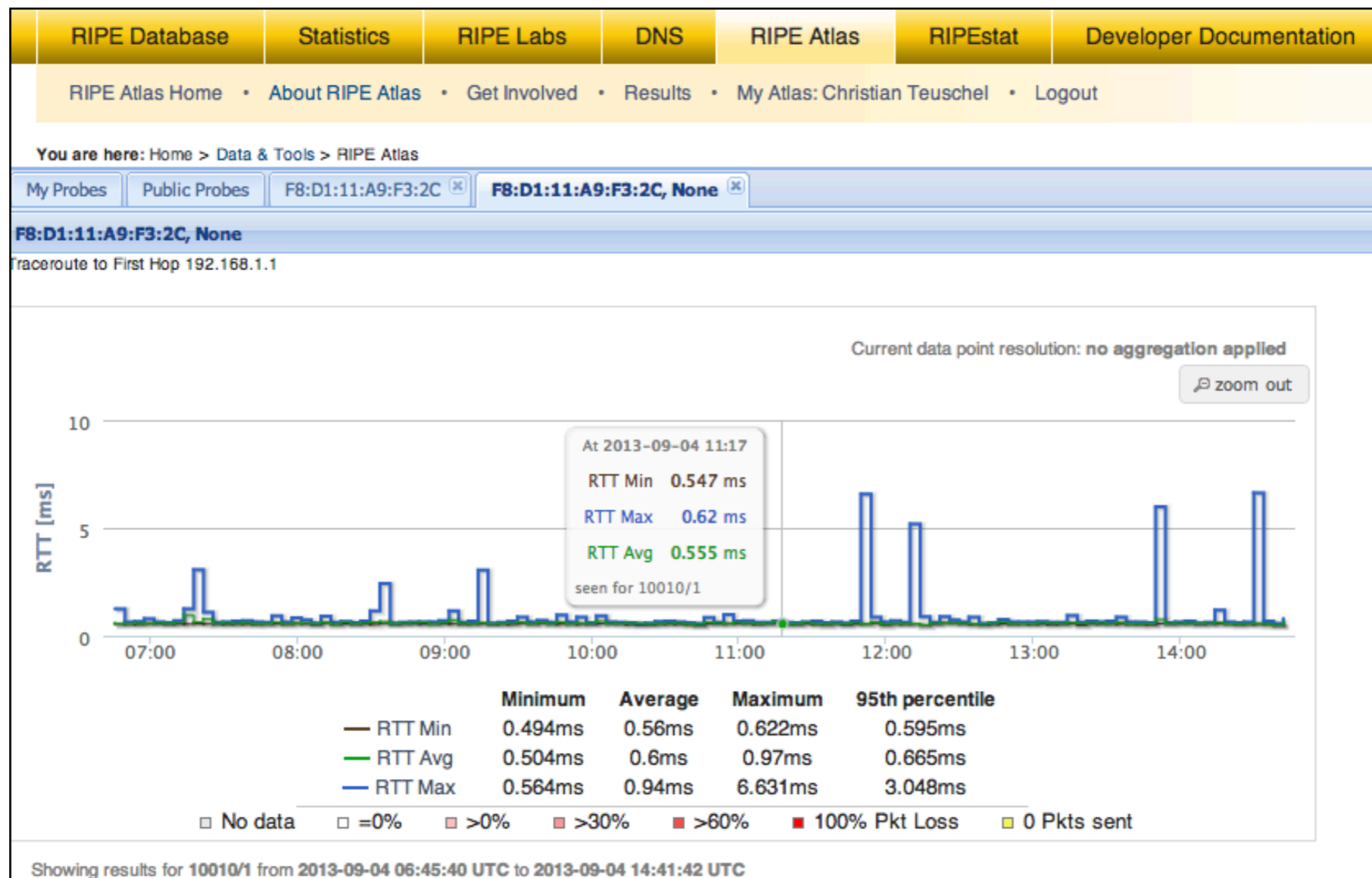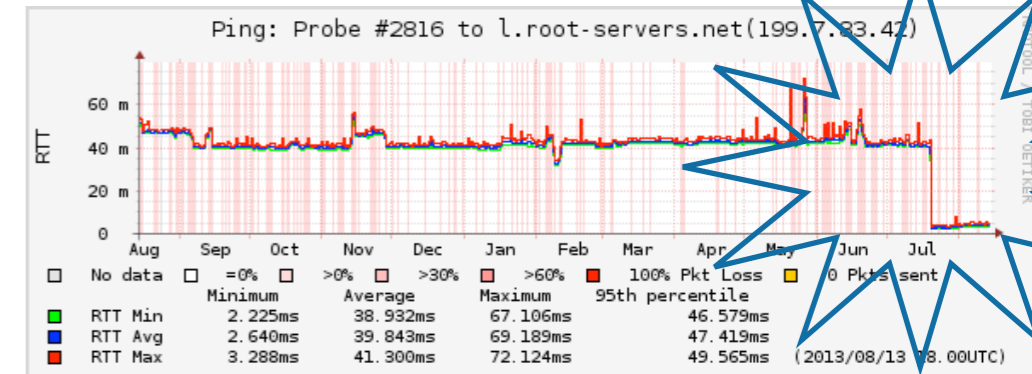
Additional Quick Look Measurements

- For RIPE NCC members, via LIR Portal
- Instantaneous view of your target
- Real-time display of results as they roll in
  - Map and table view (ProbeID, ASN, country, RTT)
  - Also as JSON download
- Types:
  - ping
  - **DNS (new)**
  - **traceroute (new)**
  - all IPv4 and IPv6, of course

Many More New Features

- Increased frequency of measurements

- Added RING nodes as targets

- Added a map of probes for sponsors

- More visualisations for user-defined measurements

- API refinements

- Improved statistics pages: search by ASN & country

- Improved backend infrastructure

RIPE Atlas Success Stories

- IXP: Measuring the effect of installing L-root in Belgrade / SOX

- DNS: Looking for most popular instances of .FR anycast servers

Name server instance	Nr. of probes connecting to instance	Percentage
dns.th2.nic.fr	173	36%
dns.fra.nic.fr	173	36%
dns.lon.nic.fr	47	10%
dns.lyn2.nic.fr	29	6%
dns.lyn1.nic.fr	25	5%
dns.bru.nic.fr	19	4%
dns.ix1.nic.fr	18	4%

- Events: Measuring outage of Internet in Sudan
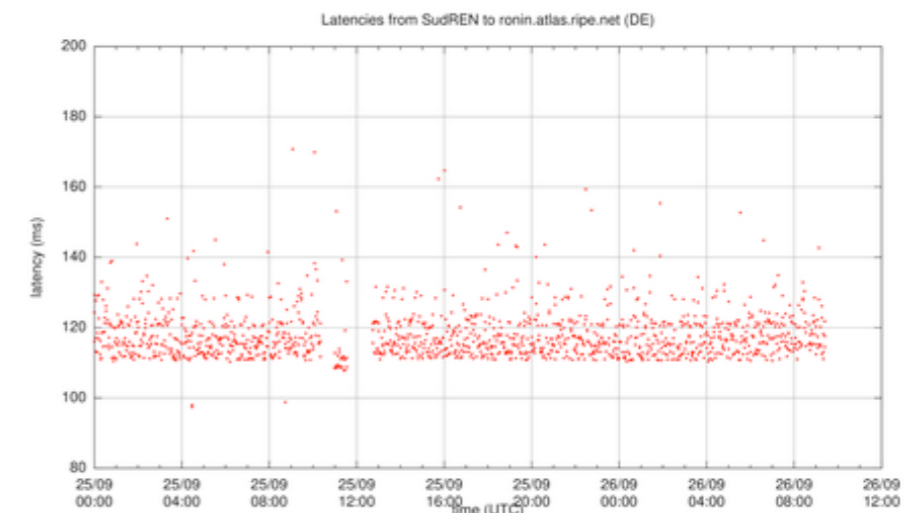
Community News

- Increased participation of "ambassadors"

  - Help in distributing probes

  - Giving workshops, tutorials, and promoting RIPE Atlas

- Active GitHub Community Repository

  - New code and new documents published

- Call to action

  - Upload your photos!

  - Regularly check New Arrivals and Top Users

  - Apply to be an ambassador or sponsor

RIPE Atlas Anchor Hosts

New Arrivals this Month

- Guess in which country ENOG6 was?

RIPE Atlas 2013 Sponsors

Plans for the Future

- Integrating DNSMON in RIPE Atlas and RIPEstat

- Implementing alerts

- Introducing "My Favorite" probe and measurements selection and viewing

- Improving traceroute visualization: T-play

- Increasing distribution via RIR cooperation

- Tell us your feature requests:

  - **http://roadmap.ripe.net/ripe-atlas/**

Questions from / to Community

- HTTP measurements: limitations and guidelines?

- Alerts: what level of ease or sophistication?

- IPv6: only for researchers? Operators needs?

- Open publication of measurement data

  – to have or not to have private measurements?

- Testing BCP38 compliance

- Most interesting use cases?

- More success stories? Do share!

RIPE Atlas Contact

- **https://atlas.ripe.net**

- Get a probe: **https://atlas.ripe.net/apply**

- Mailing list for active users: **ripe-atlas@ripe.net**

- Articles & updated on RIPE Labs

  - **https://labs.ripe.net/atlas**

- Questions: **atlas@ripe.net**

- Twitter: **#RIPEAtlas** and **@RIPE_Atlas**

- Community Builder, Vesna Manojlovic:
  @Ms_Measurements

Questions?