RIPE NCC
RIPE NETWORK COORDINATION CENTRE

Crowdsource your Infrastructure Location with OpenIPmap

Massimo Candela | 24 October 2017 | RIPE 75

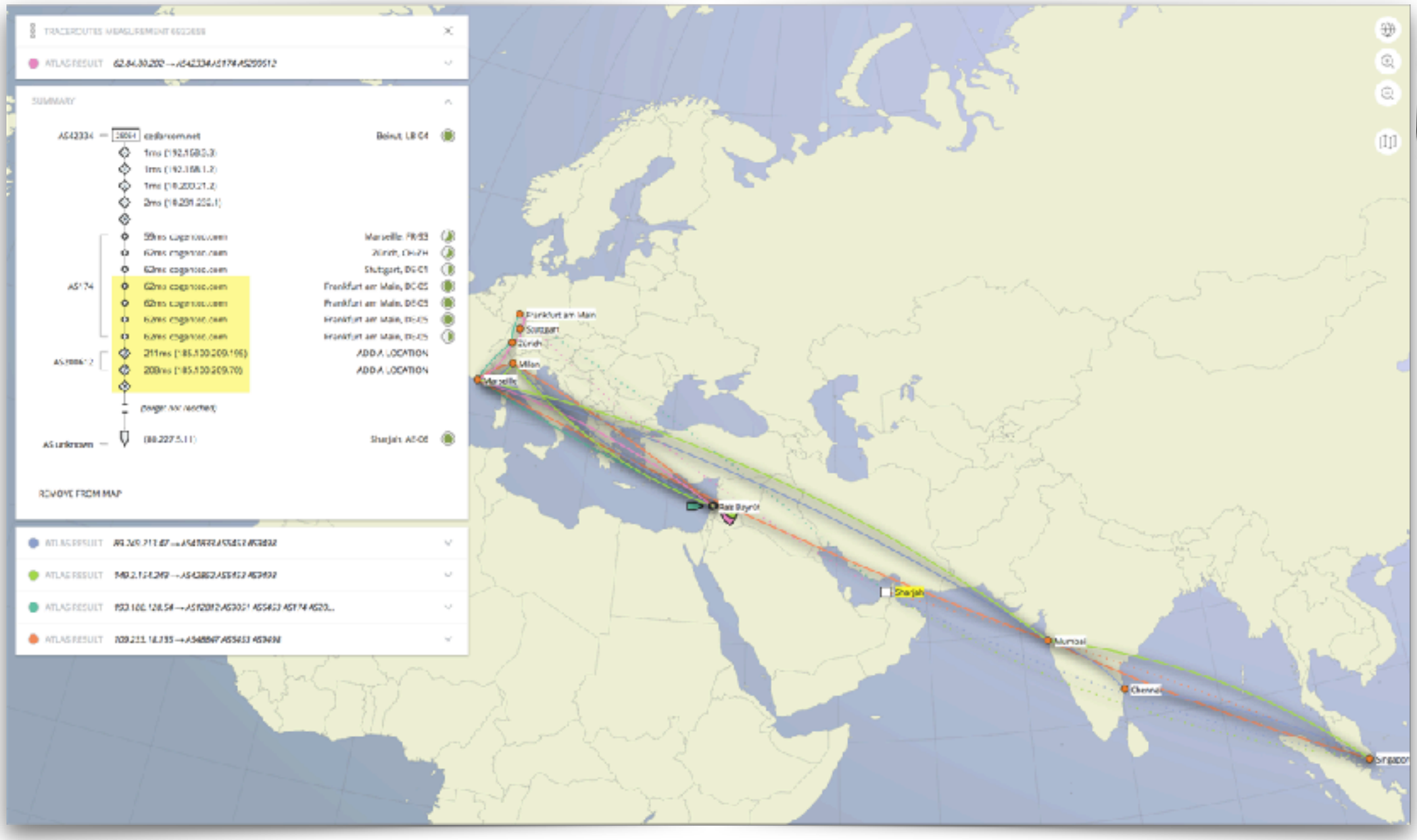
Reasons

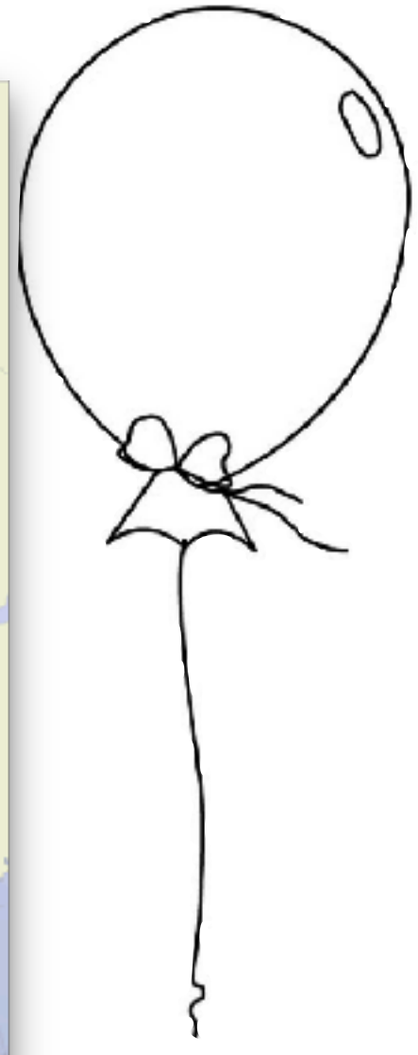
1. A topological network view is not enough - sometimes you need to see it on a **map**
   - To see spatial relations between nodes
   - To make sense of RTTs
   - To understand network relationships among countries
   - To verify your geographical optimisation policies
2. Crowdsourcing data by using a map
   - Easier than using the API for occasional use
   - Exposes wrong geolocations
   - Improves accuracy of the crowdsourced data

OpenIPmap Prototype

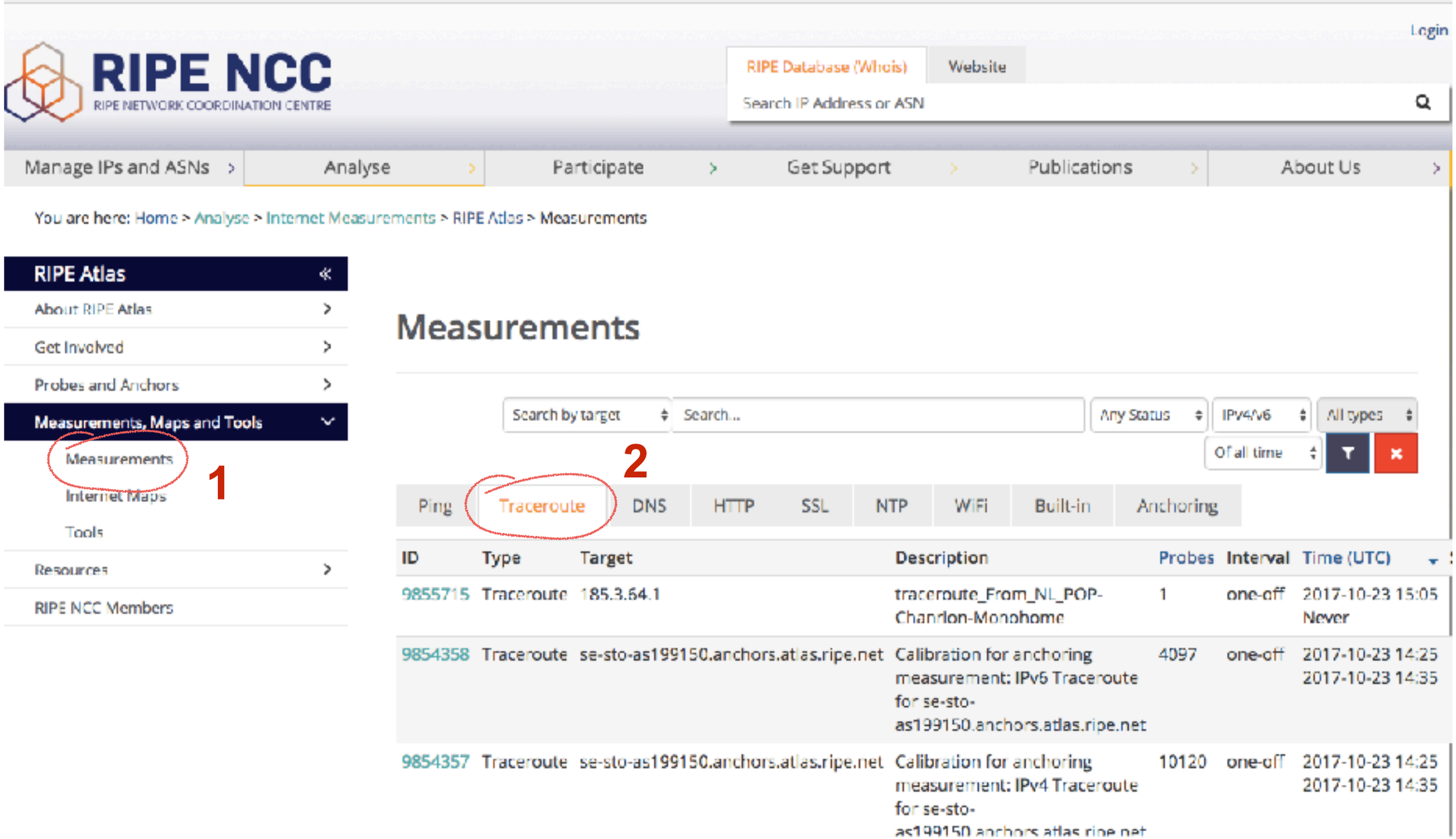
- Conceived by Emile Aben
  - labs.ripe.net/Members/emileaben/infrastructure-geolocation-plan-of-action
- The prototype attracted much interest
  - A production software is needed
- We have a new API better supporting geolocation

What's new: OpenIPmap!





Where is OpenIPmap?



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OpenIPmap Demo

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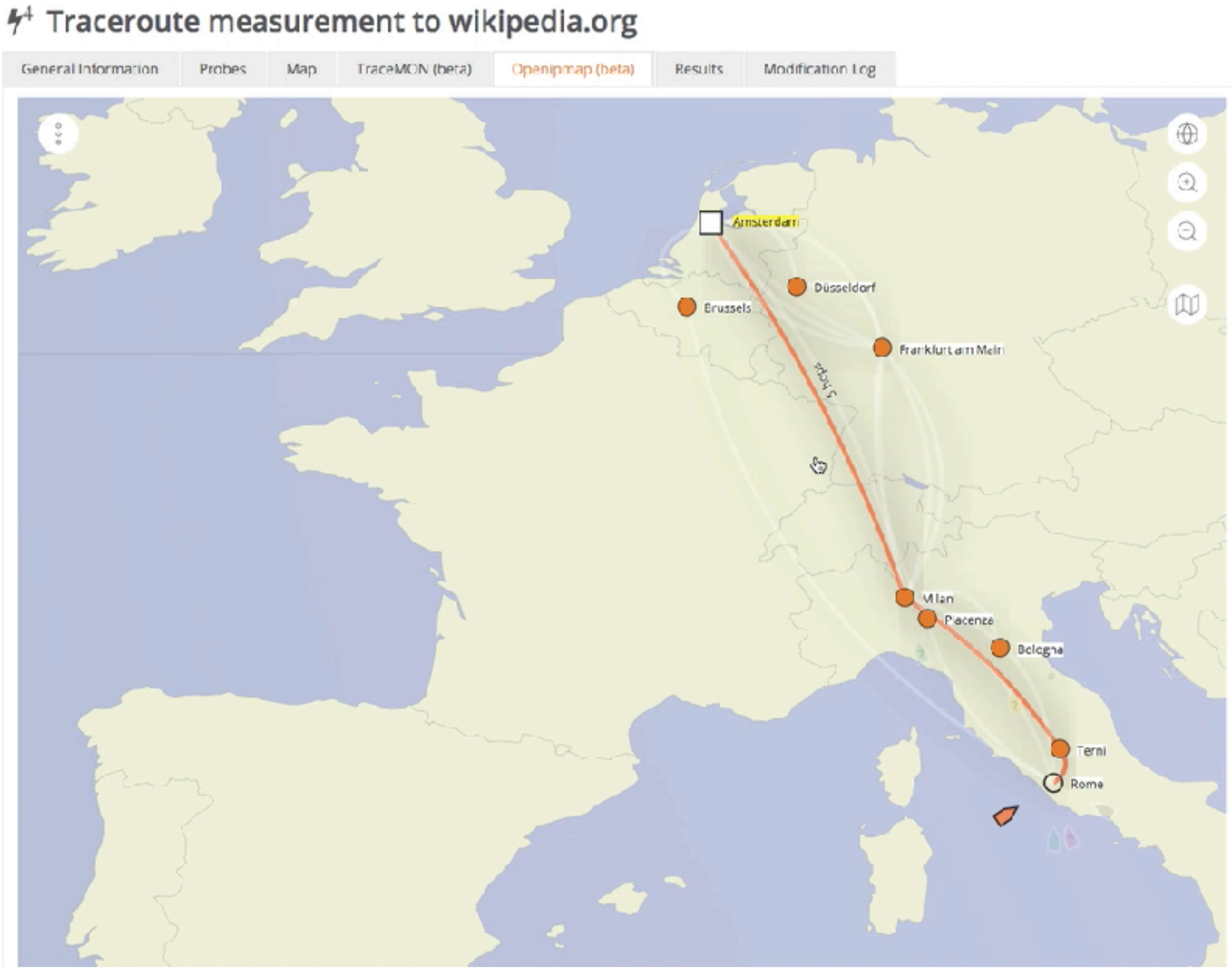
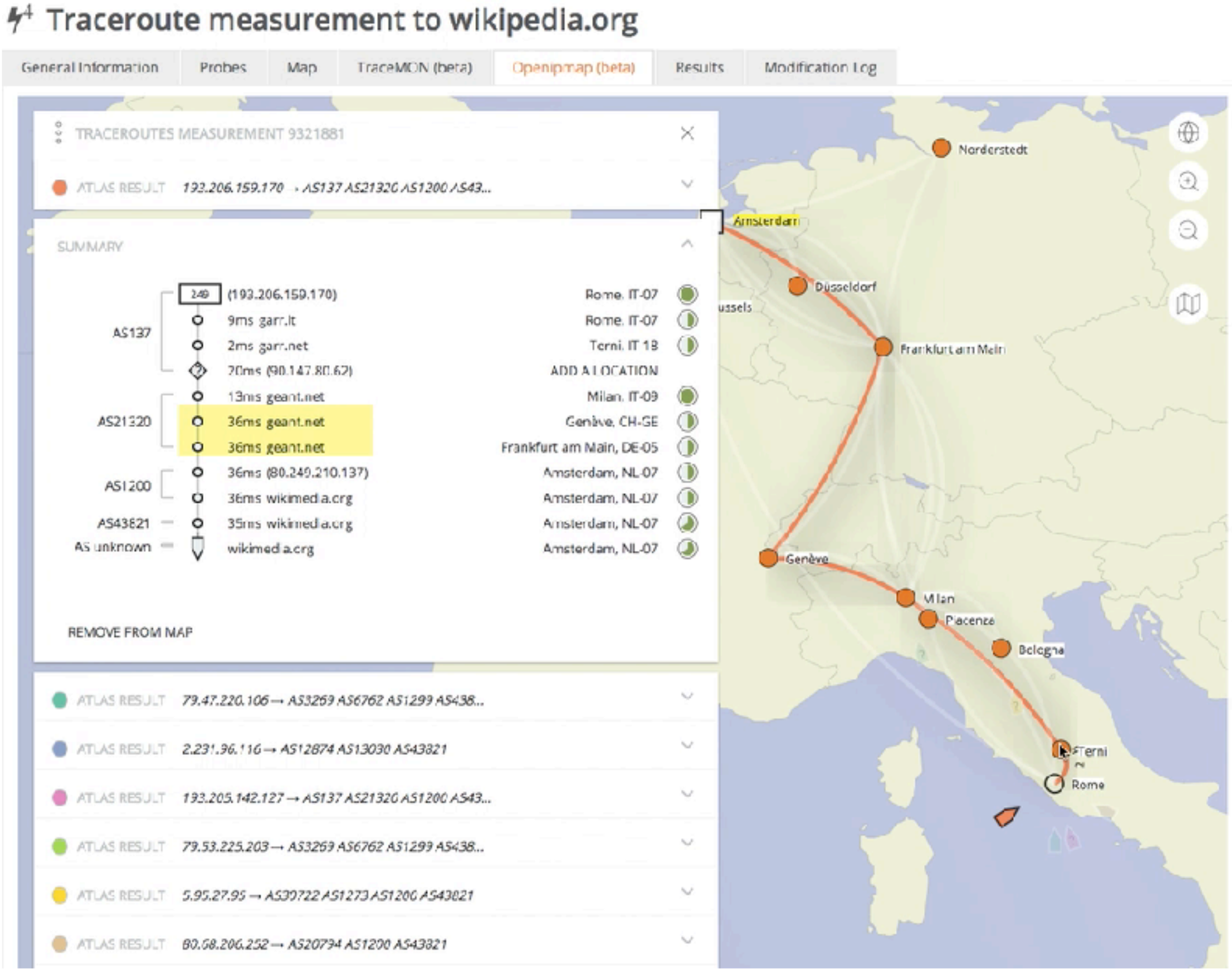
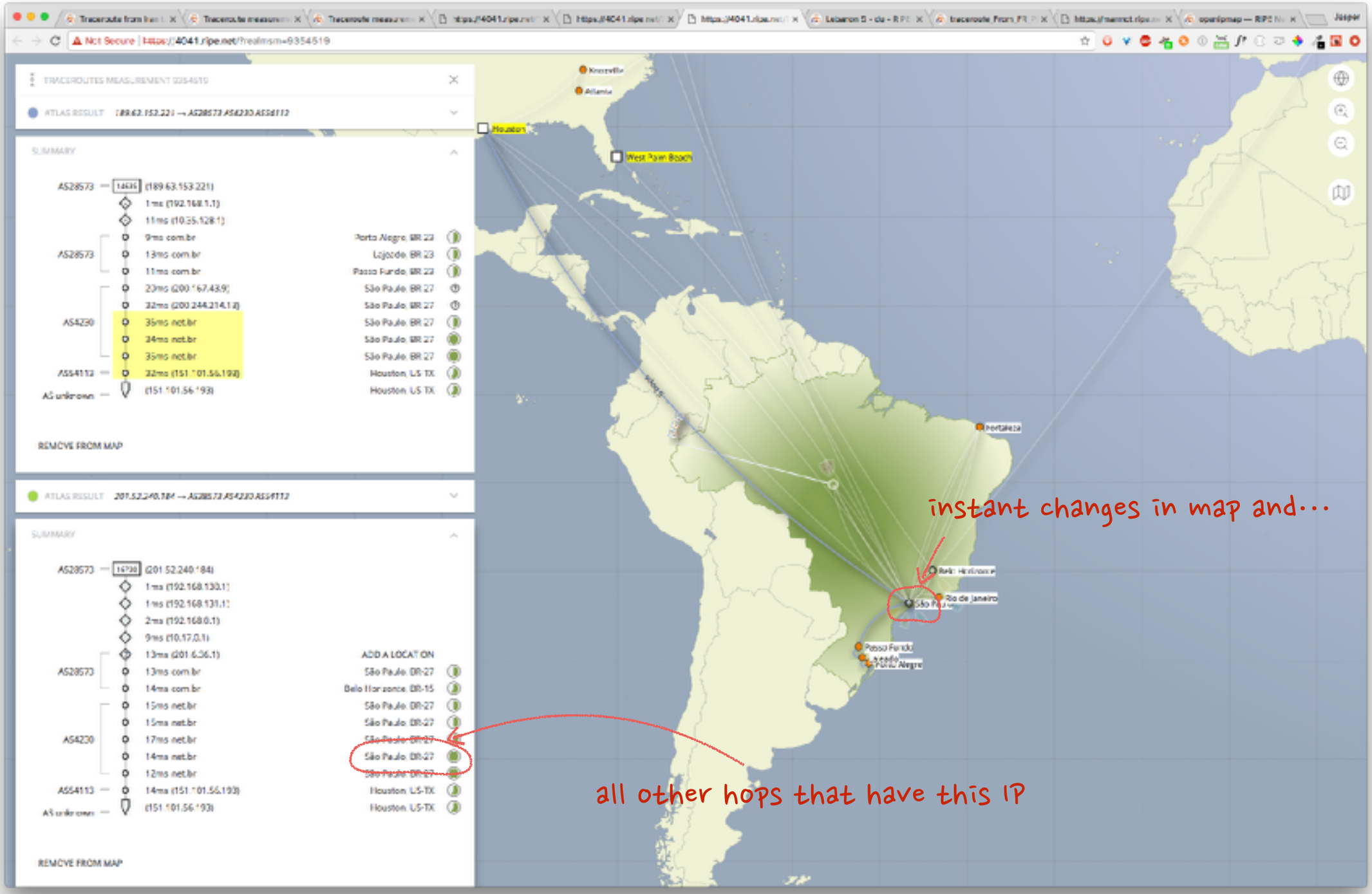


OpenIPmap Demo

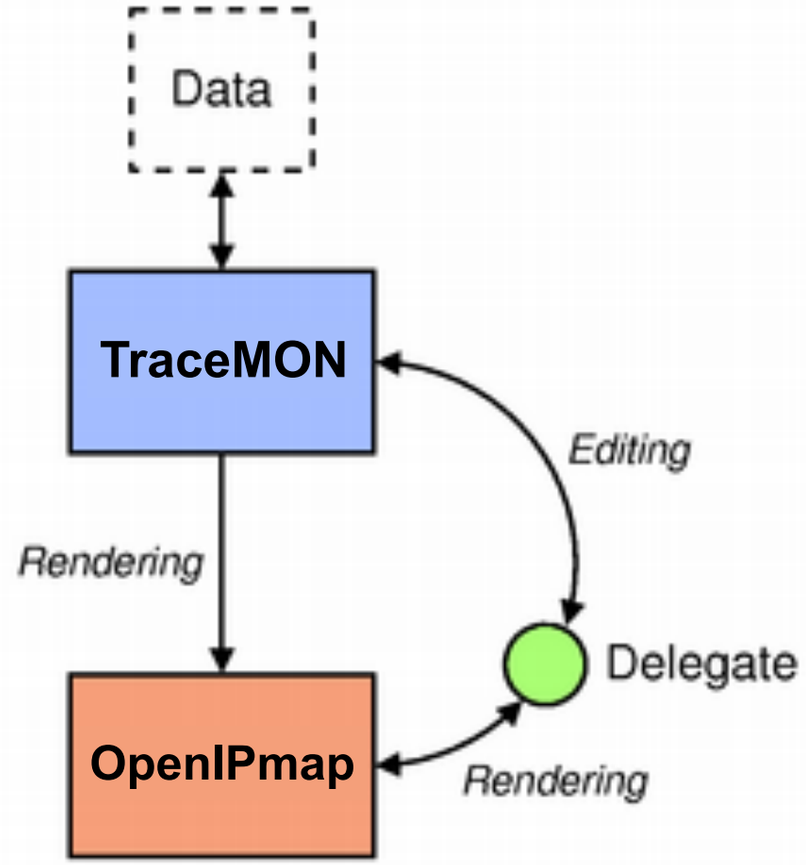


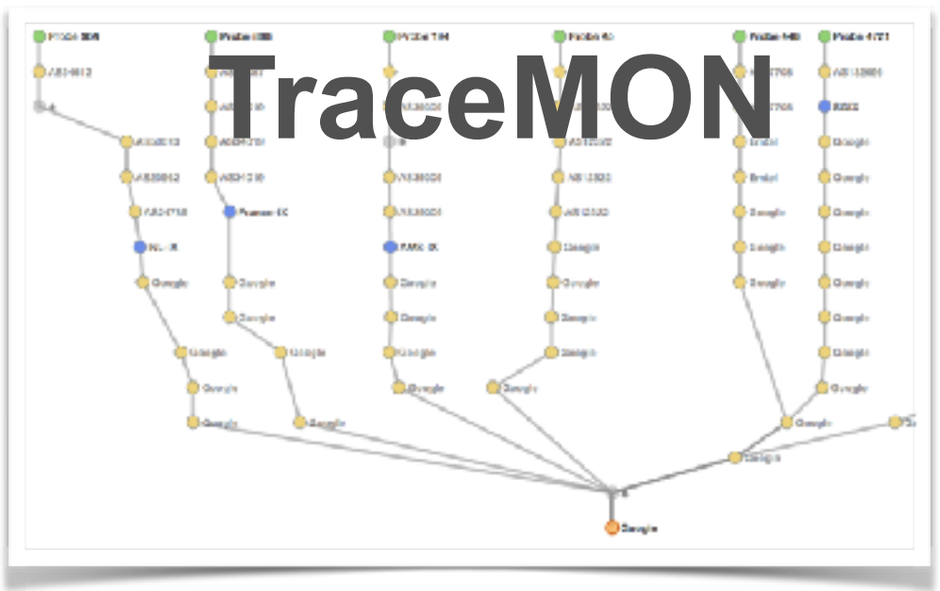
Live changes

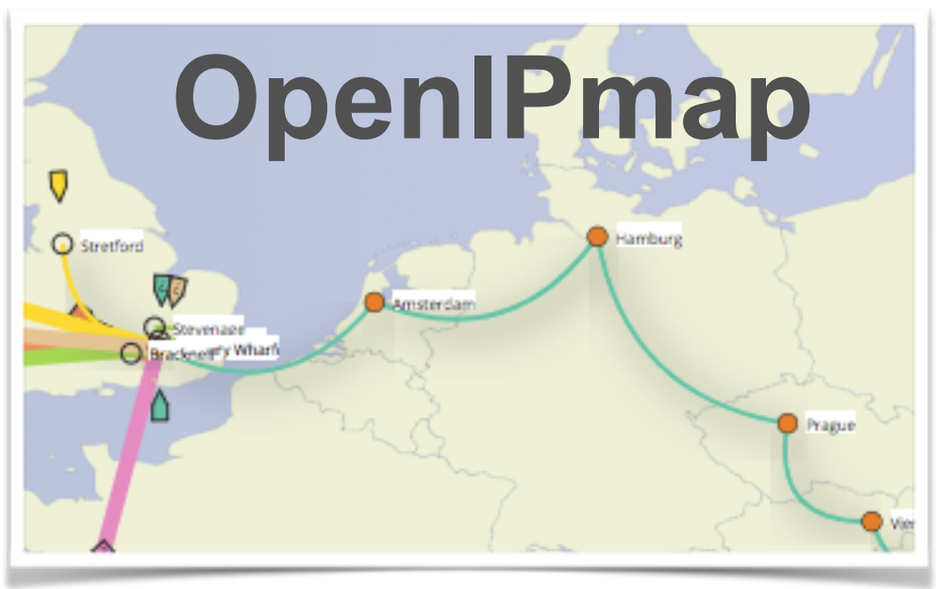


OpenIPmap and TraceMON

- OpenIPmap is based on TraceMON
  - We want to unify our efforts on a single **enriched** and **open** traceroute model
  - Inherits all the network annotations
  - Reuses the research done (or that will be done)







Future Work

1. OpenIPmap Search app
   - IP-centric view
2. Anycast support
   - We have the API!
3. Generic traceroute input
4. Improve crowdsourcing score mechanism
   - Contributions are welcome!
5. Define and publish some KPI for service evaluation
   - We already collect metadata
6. Reverse DNS geolocation

Questions

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