RIPE Atlas streaming

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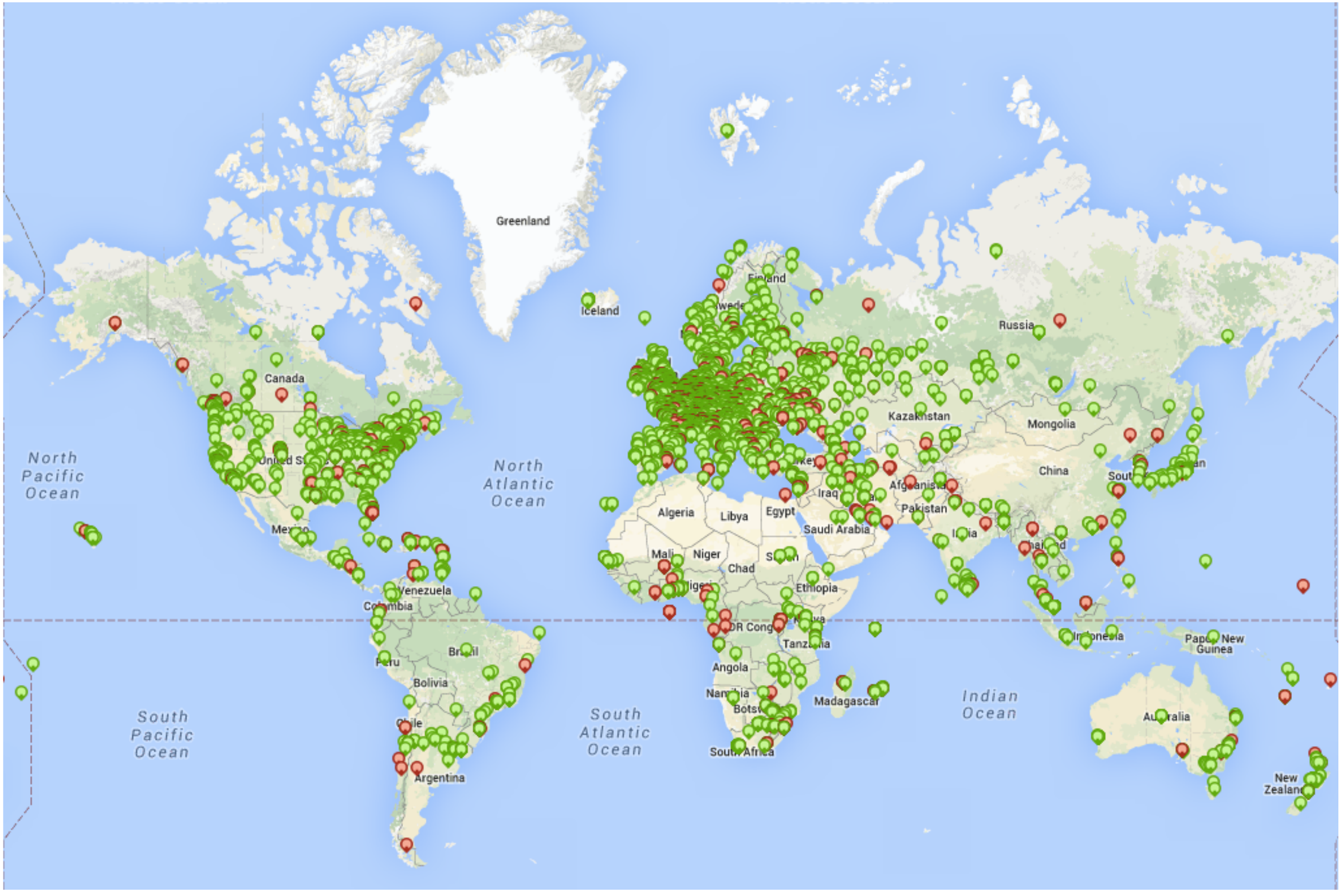
RIPE Atlas



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Some numbers (April 2015)

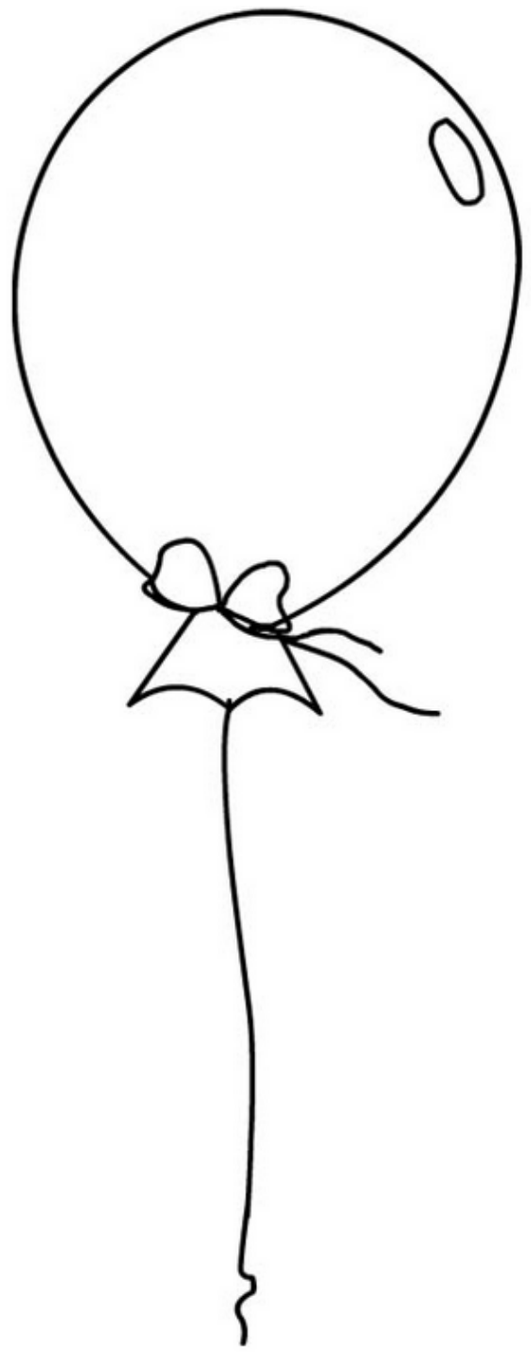
- 8,200+ probes connected (119 Anchors)
- 2,500+ results collected per second
- 35,000+ user-defined measurements weekly
  - **Five** types of user-defined measurements available to probe hosts and RIPE NCC members: ping, traceroute, DNS, SSL, **NTP** (new)

After the measurement results are collected, processed and stored, they are **downloadable** in JSON format or **visualisable** some minutes later

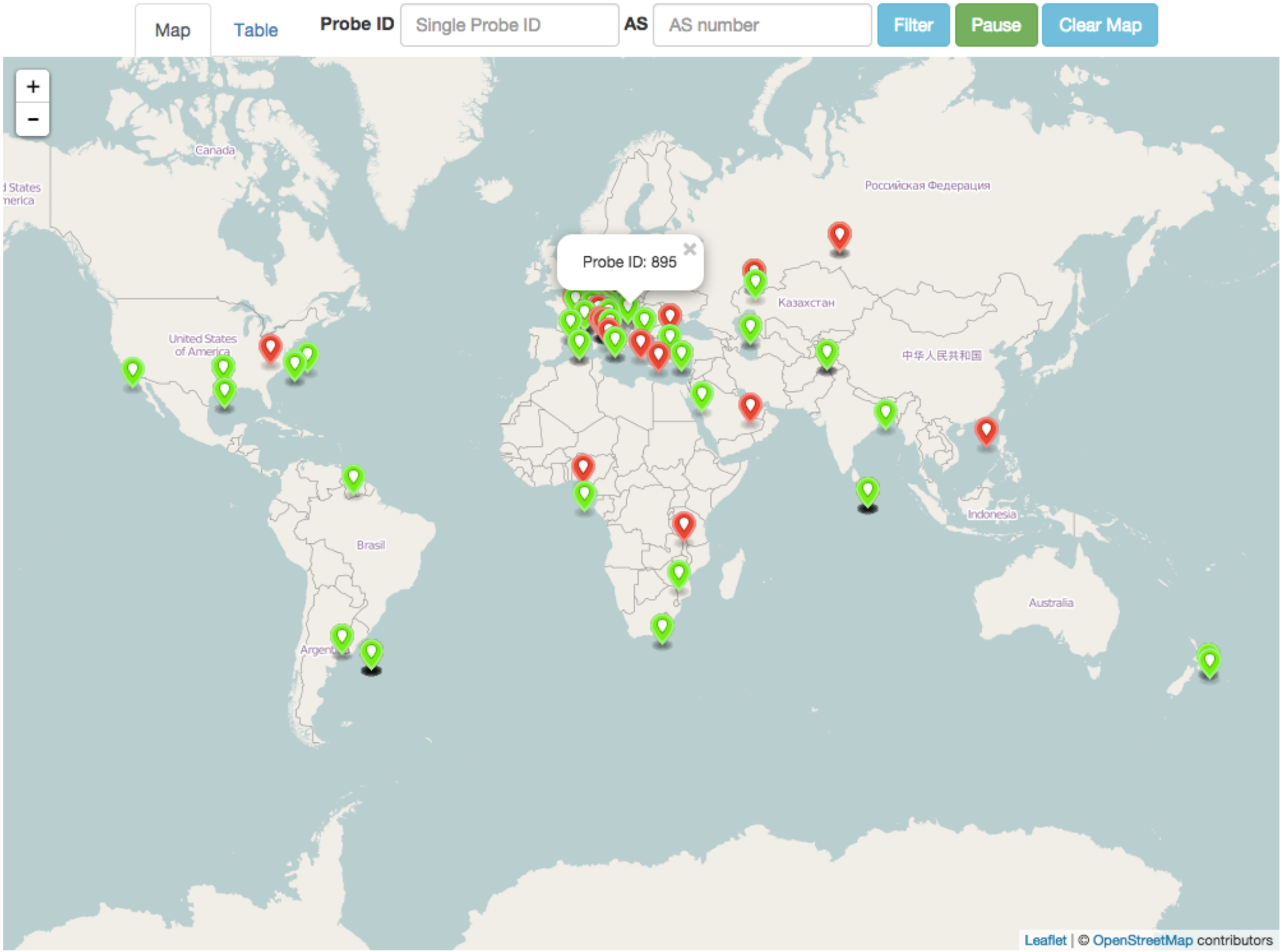
It would be nice to monitor a network in real-time!

New: RIPE Atlas streaming

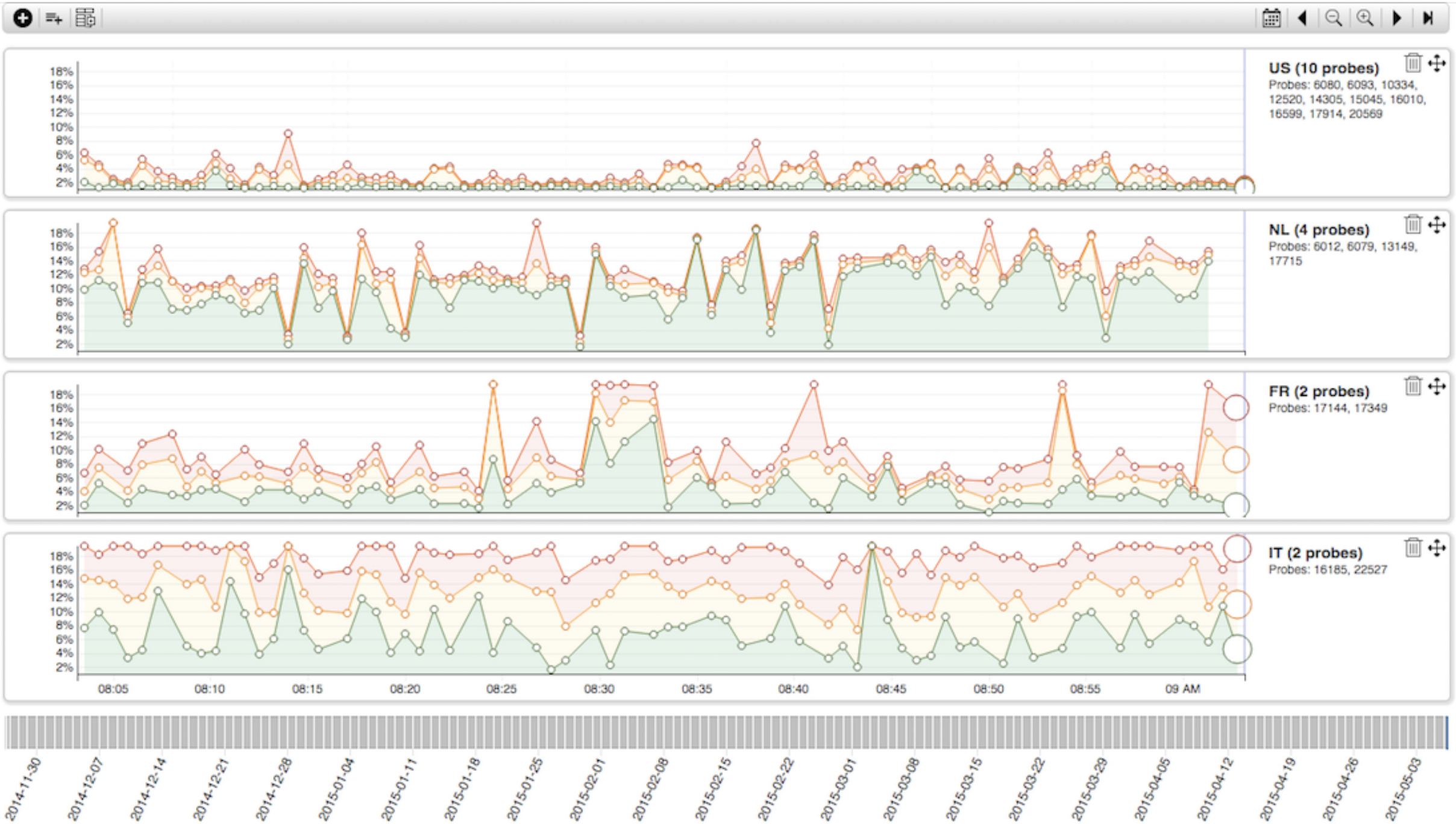
- **RIPE Atlas streaming** is a new architecture that allows users to receive the measurement results as soon as they are sent by the probes
  - Publish/subscribe through sockets
  - Measurement results and connection status events
  - Possibility to replay history (prototype)



Probe connection events



Real-time ping results (prototype)



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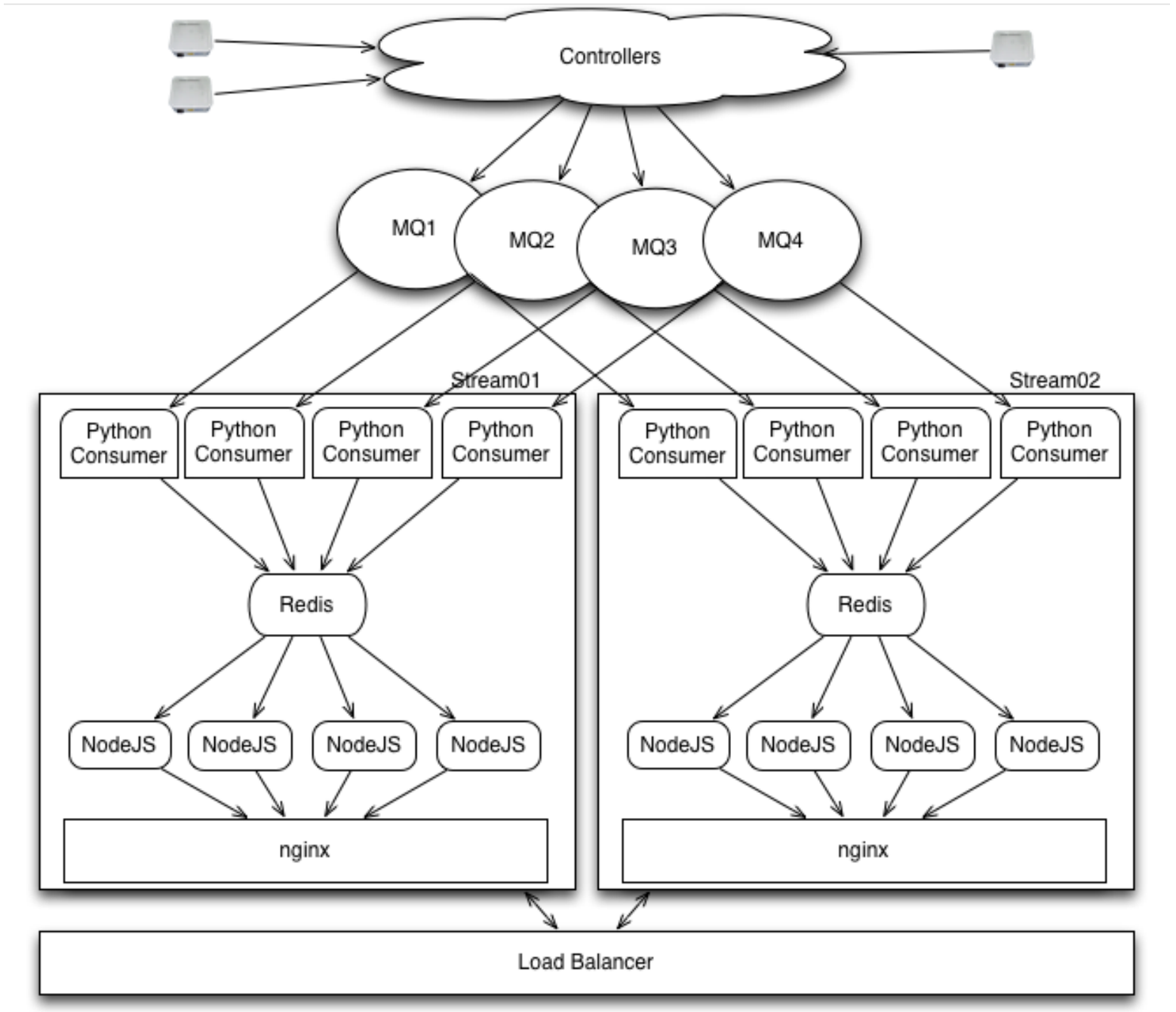
Streaming architecture



Possible client: a browser with socket.io and a few lines of JS code

Code Example


```
<script src="http://atlas-stream.ripe.net/socket.io.js"></script>
<script>
  var socket = io(“https://atlas-stream.ripe.net:443”, { path : "/stream/socket.io" });

  socket.on("atlas_result", function(result){  // Listen results
      console.log("I received ", result);
  });

  socket.emit("atlas_subscribe", {  // Subscribe
      stream_type: "result",  // Subscription type
      msm: 1791207 // Measurement ID
  });
</script>
```

Code Example - output

Elements Network Sources Timeline Profiles Resources Audits Console

<top frame> Preserve log

Filter Regex All Errors Warnings Info Logs Debug Hide network messages

```
I received ▶ Object {af: 4, prb_id: 14941, result: Array[3], ttl: 47, avg: 73.8356666667…}   test.html:5
I received ▶ Object {af: 4, prb_id: 15090, result: Array[3], ttl: 45, avg: 25.3796666667…}   test.html:5
I received ▶ Object {af: 4, prb_id: 15090, result: Array[3], ttl: 45, avg: 25.173…}          test.html:5
I received ▶ Object {af: 4, prb_id: 15090, result: Array[3], ttl: 45, avg: 26.499…}          test.html:5
I received ▶ Object {af: 4, prb_id: 10441, result: Array[3], ttl: 46, avg: 139.939…}         test.html:5
I received ▶ Object {af: 4, prb_id: 10441, result: Array[3], ttl: 46, avg: 139.7563333333…}  test.html:5
I received ▶ Object {af: 4, prb_id: 10441, result: Array[3], ttl: 46, avg: 139.811…}         test.html:5
I received ▶ Object {af: 4, prb_id: 6080, result: Array[3], ttl: 44, avg: 125.298…}          test.html:5
I received ▶ Object {af: 4, prb_id: 6080, result: Array[3], ttl: 44, avg: 124.9473333333…}   test.html:5
I received ▶ Object {af: 4, prb_id: 6080, result: Array[3], ttl: 44, avg: 124.985…}          test.html:5
I received ▶ Object {af: 4, prb_id: 6093, result: Array[3], ttl: 49, avg: 128.371…}          test.html:5
I received ▶ Object {af: 4, prb_id: 6093, result: Array[3], ttl: 49, avg: 128.3996666667…}   test.html:5
I received ▶ Object {af: 4, prb_id: 6093, result: Array[3], ttl: 49, avg: 128.3833333333…}   test.html:5
```


Resources

- Take part on GitHub
  - https://github.com/RIPE-NCC/
  - https://github.com/RIPE-Atlas-Community/

- RIPE Atlas streaming documentation
  - https://atlas.ripe.net/docs/result-streaming/

- Roadmaps:
  - http://roadmap.ripe.net/

Give us feedback

- RIPE Atlas: https://atlas.ripe.net
  - atlas@ripe.net
- On Twitter
  - @RIPE_Atlas, #RIPEAtlas
- On RIPE Labs: https://labs.ripe.net

Questions?