



**RIPE NCC**  
RIPE NETWORK COORDINATION CENTRE

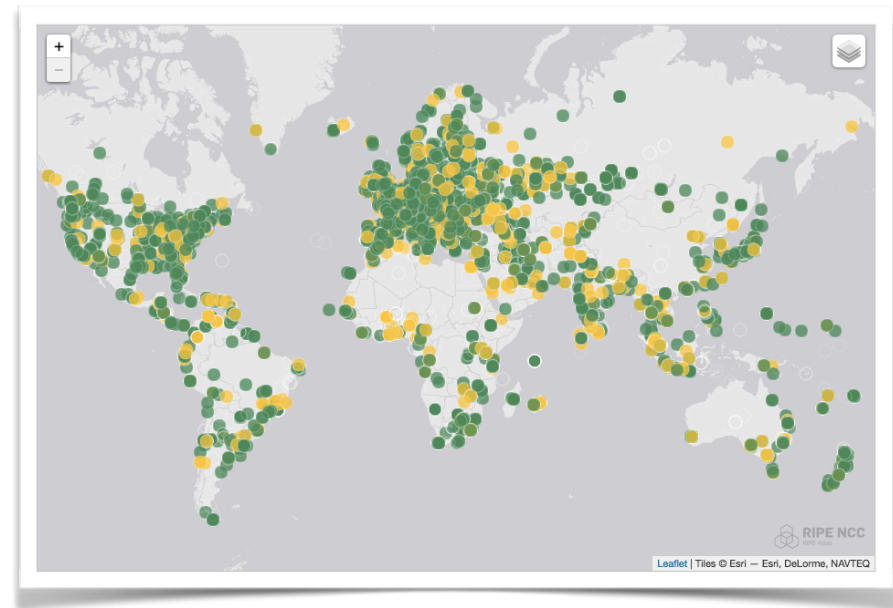
# RIPE Atlas News

Robert Kisteleki | RIPE 74 MAT WG



# Current Numbers

- Number of connected probes: ~9750
  - Was ~9350 during RIPE 73
  - Recovered from the previous slow-down/dip
- Covered ASes: ~3400 (IPv4), ~1250 (IPv6)
- Collecting ~4500 results/sec (~390M/day)





# Some More Current Numbers

- 384 RIPE Atlas ambassadors
  - Including RIPE NCC staff acting as ambassadors
- 1940 Twitter followers (@RIPE\_Atlas)
- 33000+ users total, 6400+ active last quarter
- 1000+ mailing list subscribers
- 2 RIPE Atlas sponsors in 2017 (+3 pending)
  - Let us know if you feel like sponsoring!



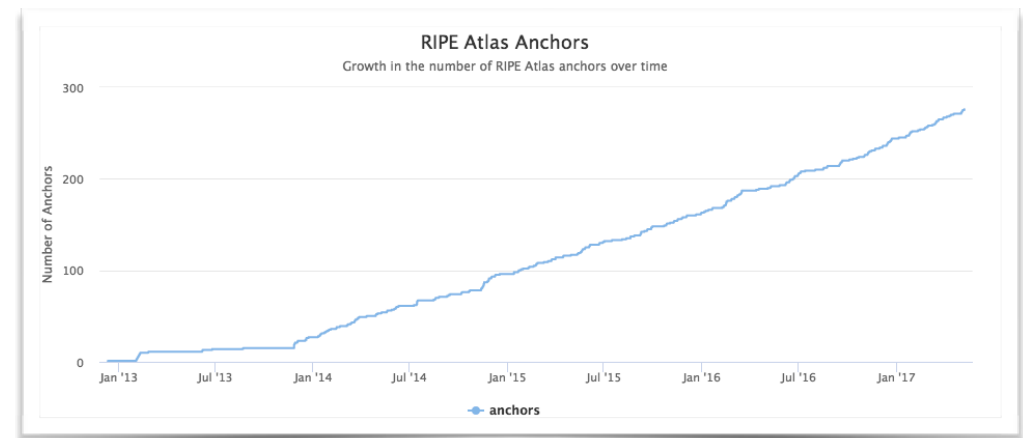
# Recent Use Cases

- Turning on Anycast on B-Root
  - [https://labs.ripe.net/Members/giovane\\_moura/anycast-on-b-root-and-ripe-atlas-view](https://labs.ripe.net/Members/giovane_moura/anycast-on-b-root-and-ripe-atlas-view)
- Using RIPE Atlas to Measure Latency to Reunion Island
  - [https://labs.ripe.net/Members/rehan\\_noordally/using-ripe-atlas-to-measure-latency-to-reunion-island](https://labs.ripe.net/Members/rehan_noordally/using-ripe-atlas-to-measure-latency-to-reunion-island)
- Using RIPE Atlas to Validate International Routing Detours
  - [https://labs.ripe.net/Members/anant\\_shah/using-ripe-atlas-to-validate-international-routing-detours](https://labs.ripe.net/Members/anant_shah/using-ripe-atlas-to-validate-international-routing-detours)
- Reviewing the 2016 Leap Second
  - [https://labs.ripe.net/Members/stephen\\_stowes/reviewing-the-2016-leap-second](https://labs.ripe.net/Members/stephen_stowes/reviewing-the-2016-leap-second)
- Reasons Dynamic Addresses Change
  - [https://labs.ripe.net/Members/ramakrishna\\_padmanabhan/reasons-dynamic-addresses-change](https://labs.ripe.net/Members/ramakrishna_padmanabhan/reasons-dynamic-addresses-change)



# Anchors

- An anchor is a probe and a willing target
  - Automatically measured and generate more credits
- Number of anchors: 250+ (224 last time)
- Thanks to APNIC, LACNIC, ISOC & AFRINIC who are sponsoring anchors in other regions
  - Let us know if you also want to sponsor these





# Probes

- We're looking at candidates for “version 4” probes
  - Should be capable, stable, inexpensive and available
- Version 1 and 2 probes already lived beyond their foreseen life time
  - We still have ~600 + ~1400 of these up and running
  - Version 1 probes approached their technical limits
  - We'll freeze their firmware soon but otherwise continue supporting them for as long as possible (e.g. still do security updates if needed)



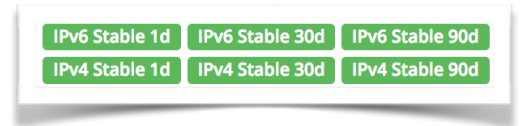
# Going Virtual (?)

- We're evaluating the potential for virtual probes
  - Probes where the physical device is replaced by a Virtual Machine provided by the host
  - Could reach places that physical probes can't
  - The costs: higher risks and changes in operations, “noisy neighbours”, avoiding “fast flux” deployments, etc.
- Perhaps even virtual anchors, as a next step



# In Other News

- New “probe stability” system tags
- New DNS root zone measurements
- May be coming: “Cloud Reachability”
  - Reachability measurements against servers “in the cloud”
- Held a DNS measurements hackathon in April 2017
  - [https://labs.ripe.net/Members/alun\\_davies/dns-measurements-hackathon-2017](https://labs.ripe.net/Members/alun_davies/dns-measurements-hackathon-2017)







# Out Now: TraceMON

- Our newest traceroute visualisation tool
  - Watch Massimo's presentation for details



This block shows a detailed view of the France-IX (AS57734) node. The information displayed includes:

- IP:** 37.49.236.2
- Located in:** Paris, FR (with an 'Update' button)
- PeeringDB:** IXP: France-IX, Paris, FR; Lan: 37.49.236.0/23 (with an 'Update PeeringDB' button)
- Routing Info:** 57734 - FRANCEIX, FR; Announced: Yes
- Registry info:** Resource: 57344-58367; Name: IANA 16-bit Autonomous System (AS) Numbers Registry; Desc: Assigned by RIPE NCC

At the bottom of the node view are three buttons: 'Contact holder', 'Whois', and 'See BGP events'.

# Almost There: Wi-Fi Measurements



- Verifying if Wi-Fi connections work or not
  - Using regular, wired probes
- Not general purpose “is my home Wi-Fi ok?”
  - Targets specific WiFi networks; Eduroam first
- Probes/hosts will have to opt-in
- Main benefit for RIPE Atlas: potential wider coverage of networks



# OpenIPMap

- First production release is imminent

The screenshot displays the OpenIPMap web interface. On the left, a world map shows a traceroute path from the United States to South Africa. The right panel provides details for an Atlas measurement (ID: E345845). The 'GENERAL' section lists the source probes used and the target host (72.21.80.200). The 'LOADED TRACEROUTES' section shows two paths: one from AS7922 to AS1299 and AS15133, and another from AS7922 to AS1299 and AS15133. The 'SUMMARY' section shows a list of hops with their respective ASNs, IP addresses, and locations. A modal window is open for editing the host location, showing the current location as Seattle, US.

Home > Analyse > Internet Measurements > RIPE Atlas

OpenIPMap Collections Atlas Measurements Traceroutes GeolP View

Details atlas measurement E345845

GENERAL

all probes used as source: 24 32 304 1046 1058 1116 1134 1189 1193 1196 2567 2685 2769 3041 3444 3579 3644 4155 6061 6062 6065 6066 6072 6080 6122 6147 6223 10185 10334 10422 10423 10595 10770 10790 11171 11528 11687 11857 12105 12108 12115 12116 12134 12380 12452 12546 12685 12693 12802 12806 13128 13546 13614 14284 14641 14882 14933 15542 15958 17587 17797 17914 18275 18451 18512 18664 19096 19460 19761 19911 21195 22379 22382 22511 22710 22802 23017 23033 23036 23903 24899 25004 27647 27952 28529

target host: 72.21.80.200

start: 2017-05-01T08:00:24Z

stop: 2017-05-01T08:10:07Z

LOADED TRACEROUTES

probes used: 24 32 304 1046 1058 1116 1134 1189

timerange: 2017-05-01T08:00:24Z - 2017-05-01T08:00:27Z

TRACEROUTE: 72.254.190.25 → AS7922 AS7922 AS1299 AS15133

TRACEROUTE: 24.16.252.197 → AS7922 AS7922 AS1299 AS15133

SUMMARY

AS7922 → 1054 comcast.net Port Elizabeth, ZA  
8ms (172.16.50.1)

AS7922 → 324167 (96.120.100.53) Kampala, UG  
12ms 455029 comcast.net Casablanca, MA  
13ms 813304 comcast.net New York City, US

AS1299 → 65.139.164.158

AS15133 → be-43-ar01.seattle.wa.seattle.comcast.net

EDIT HOST LOCATION

HOST  
65.139.164.158

CURRENT LOCATION  
City  
sea

Country  
United States

cities that match your input  
Seattle, US

CANCEL SUBMIT

19ms 681756 comcast.net Boston, US  
16ms comcast.net ADD A LOCATION

Current Collection aggregated by Atlas measurement and time

Results from May 1st 2017, 08:00:27 UTC

ATLAS MEASUREMENT

ID E345845  
RAN 8 days ago

8 traceroutes from 8 probes loaded



# Questions



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