



RIPE NCC
RIPE NETWORK COORDINATION CENTRE

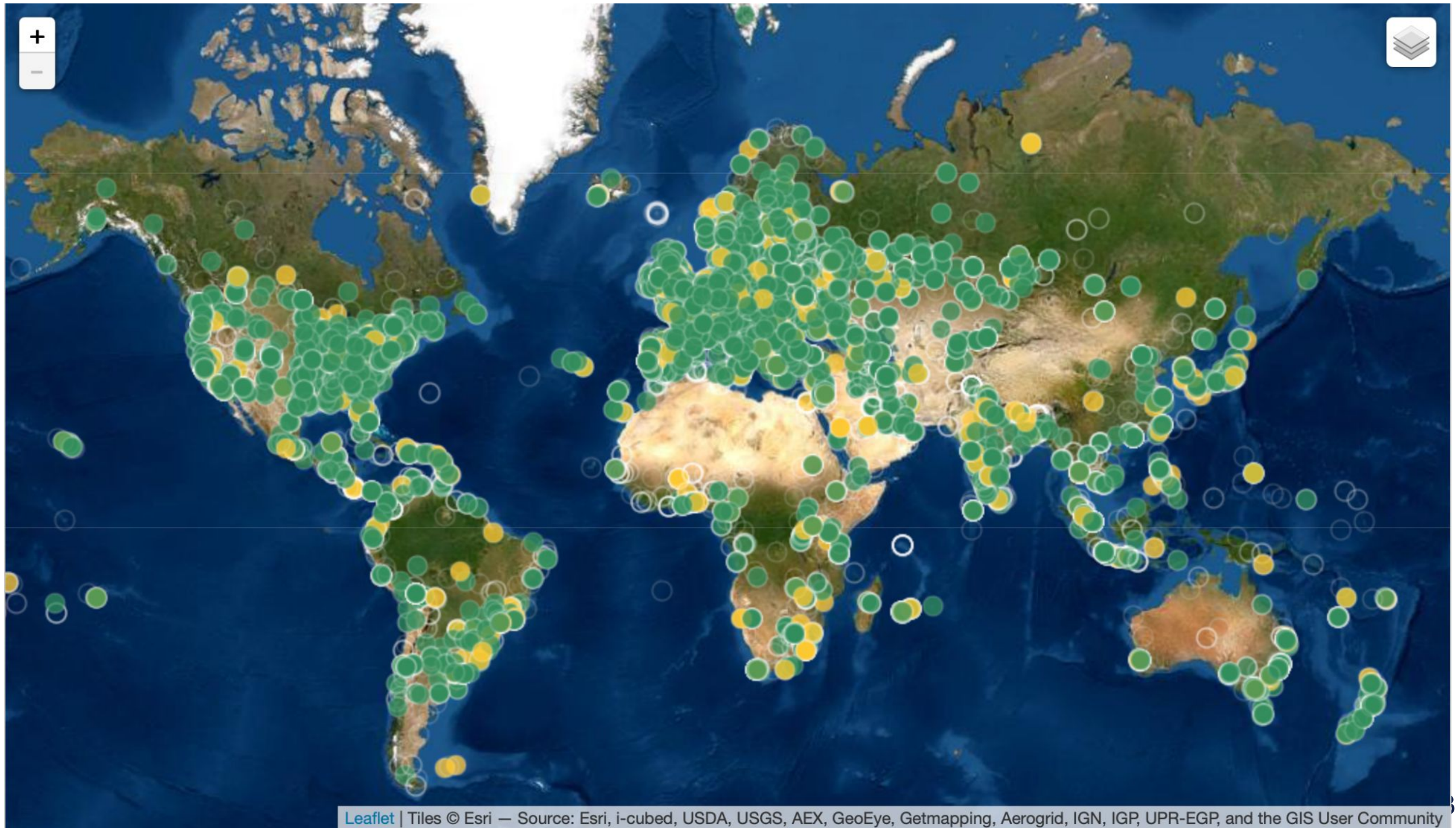
Sesión de Introducción al Deployathon

Noviembre 2021



RIPE Atlas

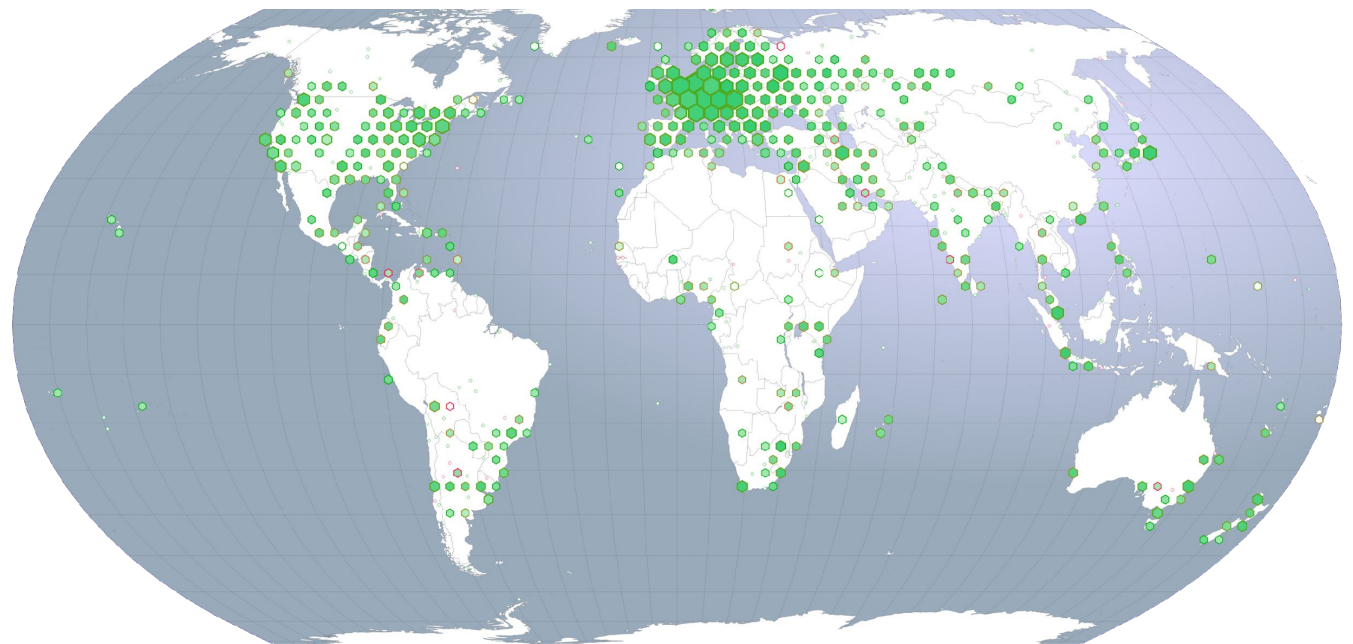
Cobertura de RIPE Atlas



RIPE Atlas está compuesto por...



- 11100+ probes
 - Hardware y software
- 750+ anchors
 - Hardware y virtual machines
- Alrededor del mundo

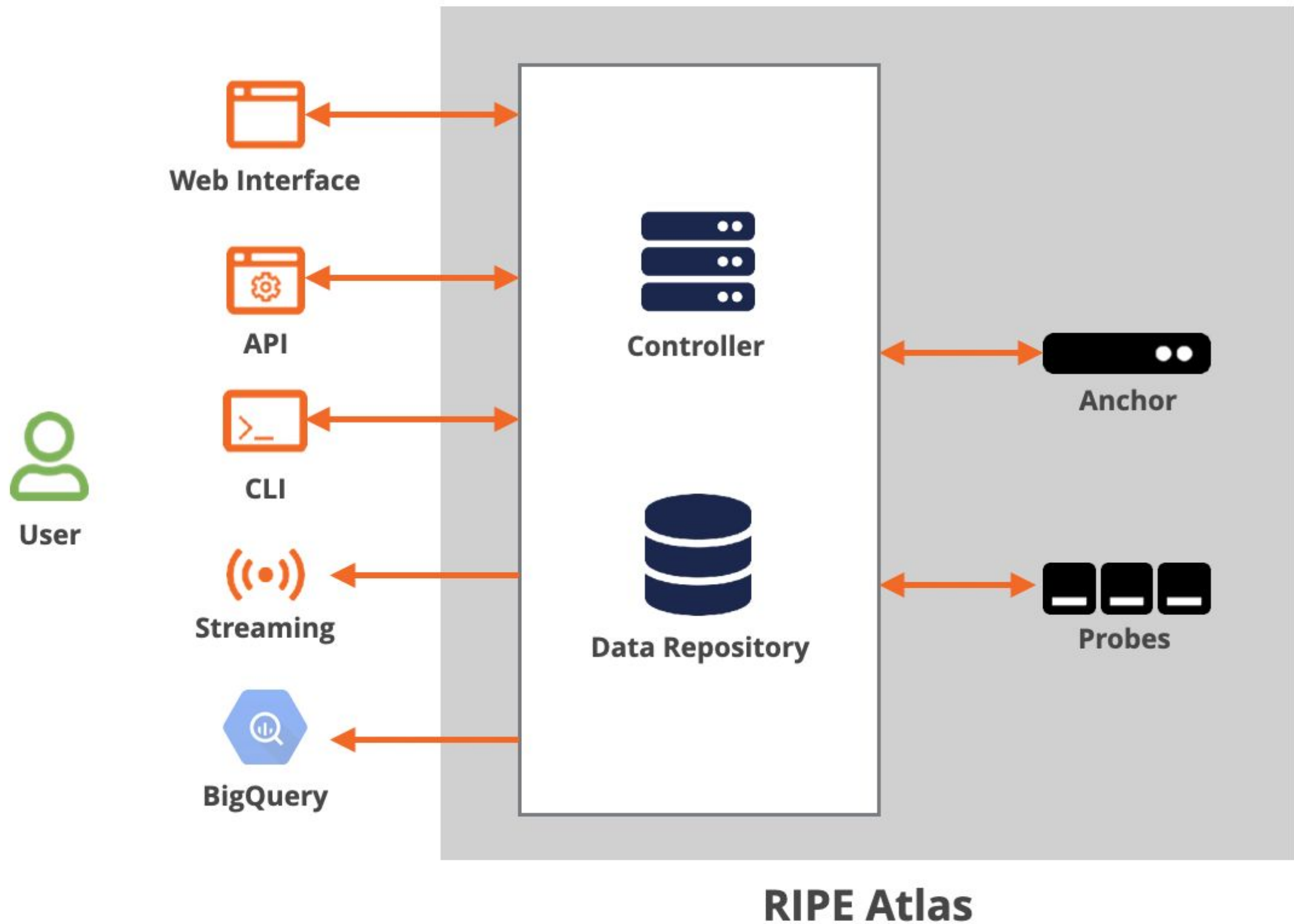


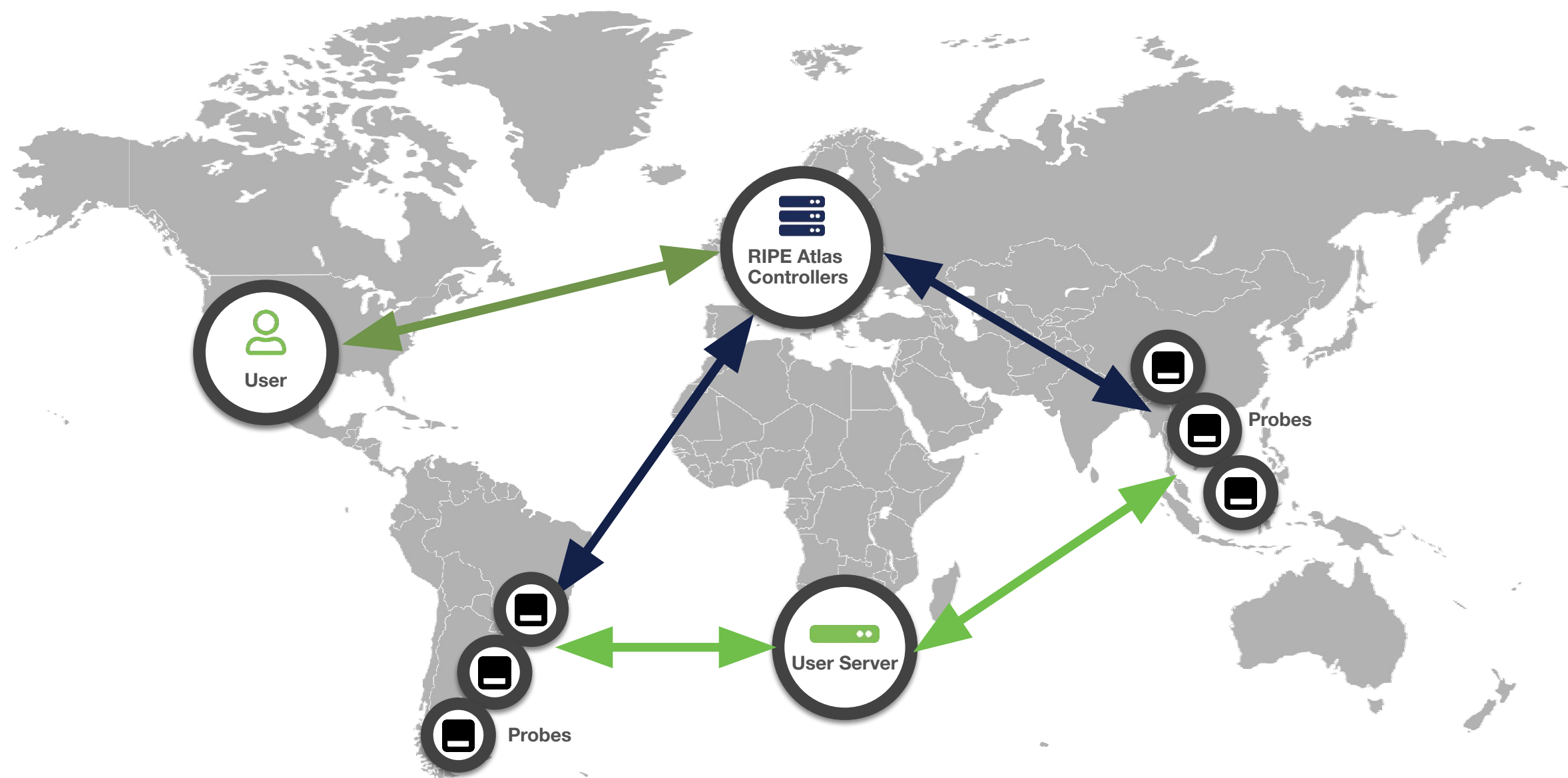
Objetivos de RIPE Atlas



- Sistema amplio de mediciones de Internet
 - Infraestructura de Internet, no todas las aplicaciones
- Información en tiempo real e histórica
- Mediciones outbound e inbound (activas)
- Esfuerzo colaborativo
- Abierto y gratuito
- Capacidad para IPv4 e IPv6.







RIPE Atlas



- 6 tipos de mediciones: ping, traceroute, DNS, SSL/TLS, NTP, HTTP*

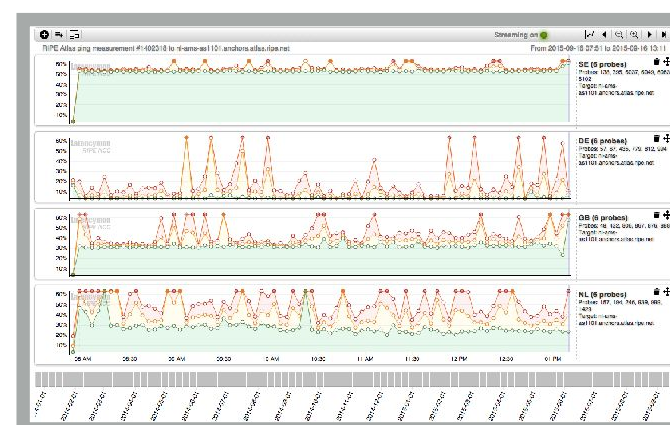
Probe	ASN (v4)	ASN (v6)		Time	RTT
6019	3333	3333		2015-05-19 09:23	1.157
6069	59469	59469		2015-05-19 09:23	15.253
6111	198068	198068		2015-05-19 09:23	37.760
6112	197216	197216		2015-05-19 09:23	35.494
10008	3851			2015-05-19 09:23	24.664
10218	6876			2015-05-19 09:23	37.952
10246	39608			2015-05-19 09:23	36.313
10252	50288			2015-05-19 09:23	62.441
10267	12322			2015-05-19 09:23	31.498
10296	51214			2015-05-19 09:23	Unreachable

List of probes sortable by RTT



Map colour-coded by RTT

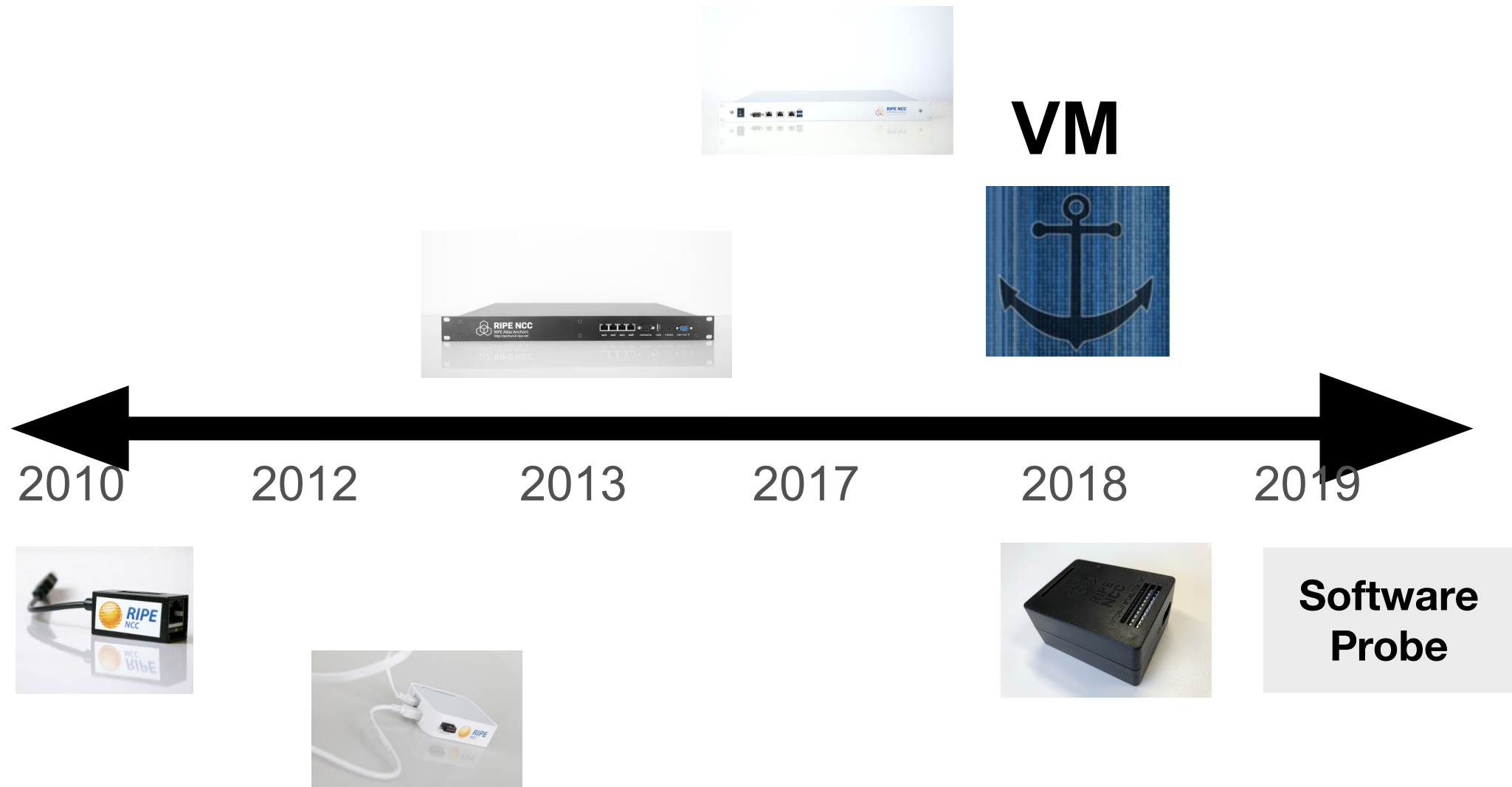
- Datos públicos



LatencyMON
compare multiple latency trends

- Créditos para mediciones personalizadas

Measurement Devices



Créditos



- Cada medición tiene un costo en créditos.
 - Ping = 10 créditos
 - Traceroute = 20 créditos
- ¿Por qué? Equidad y evitar sobrecarga.
- Limite de gasto diario
- Numero máximo de mediciones

Credits

Here you can see the history of your credit use and current consumption, transfer credits to someone else, and redeem a voucher for credits if you have one.

[History](#) [Charts & Archives](#) [Transfer](#) [Standing Order](#) [Share Access](#)

[Redeem voucher](#)

3,026,320,745

43,200.00 credits / hour

Time	Comment	Change	Balance
2020-11-18 06:13:29 UTC	Measurement: 3460108 Samples: 180	-540	3,026,320,745
2020-11-18 05:03:17 UTC	Probe ID: 6348 For results delivered	722,623	3,026,321,285
2020-11-18 01:00:03 UTC	Probe ID: 51508 Probe uptime Ambassador	2,143	3,025,598,662
2020-11-18 01:00:02 UTC	Probe ID: 33132 Probe uptime Ambassador	2,155	3,025,596,519
2020-11-18 00:13:09 UTC	Measurement: 3460108 Samples: 203	-609	3,025,594,364
2020-11-17 18:13:11 UTC	Measurement: 3460108 Samples: 206	-618	3,025,594,973
2020-11-17 17:06:13 UTC	Probe ID: 52003 Probe uptime Ambassador	2,160	3,025,595,591



Ganar créditos

- ¿Cómo ganar créditos?
 - Hospedar un probe / anchor
 - Ser miembro de RIPE NCC
 - Ser sponsor de RIPE Atlas
 - Transferencia
 - Voucher
- ¿Quién quiere ser millonario?
 - <https://atlas.ripe.net/user/credits/#!redeem>
 - Voucher: DEPLOYATHON2021



Novedad: Data on Google BigQuery



- Herramienta que permite filtrar, consultar y procesar rápidamente los resultados de las mediciones de RIPE Atlas, mejorando la capacidad para explorar este conjunto de datos.

<https://labs.ripe.net/tools/ripe-atlas-on-bigquery>

The screenshot displays the Google Cloud Platform BigQuery interface. The top navigation bar includes 'Google Cloud Platform', 'Serious Research Project', and a search bar. The left sidebar shows a tree view of resources, with 'serious-research-project' expanded to show 'ripence-atlas', which is further expanded to show 'measurements' and 'samples'. The 'Query editor' on the right contains a SQL query:

```
1 select msm_id, count(*) result_count
2 from `ripence-atlas`.`samples`.`ping`
3 group by msm_id
4 order by result_count desc
```

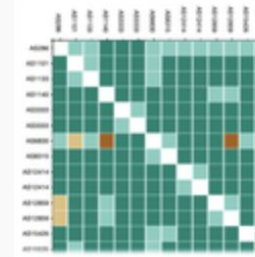
 Below the query editor, a 'Valid' status is shown, along with buttons for 'Run', 'Save query', 'Save view', 'Schedule query', and 'More'. A message indicates 'This query will process 40.6 MB when run.' The 'Query results' section shows a table with 11 rows of data. The table has columns 'Row', 'msm_id', and 'result_count'. The bottom of the interface shows pagination controls: 'Rows per page: 100', '1 - 100 of 9206', and 'First page 1<'.

Row	msm_id	result_count
1	1012	40299
2	1016	40185
3	1015	40102
4	1004	40058
5	1030	40046
6	1009	40038
7	1010	39993
8	1019	39992
9	1005	39924
10	1013	39906
11	1031	39878

RIPE Labs Tools



- Una lista de herramientas prototipo y visualizaciones en las que se sigue trabajando
 - <https://labs.ripe.net/tools>

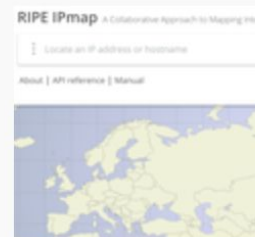


IXP Country Jedi

PROTOTYPE

IXP Country Jedi provides visualisations of Internet traffic paths (traceroutes) between RIPE Atlas probes located in the same country to show whether those paths take out of country detours, and what IXPs they pass through.

Tags: prototype



RIPE IPmap

PRODUCTION

RIPE IPmap is the RIPE NCC's tool for mapping core Internet infrastructure. Through collaboration with various researchers, RIPE IPmap integrates several ground breaking methods for geolocation whilst also using crowd-sourced data to modify and correct its results.

Tags: production



User to User Connections

PROTOTYPE

These visualisations sketch out the different ways in which end-users are interconnected within the same country. Each sketch represents a snapshot of user to user connections at a single given point in time to provide insight into how networks interconnect their users.

RIPE Labs Tools: IXP Country Jedi



- Proporciona visualizaciones de rutas de tráfico de Internet (traceroutes) entre sondas RIPE Atlas ubicadas en el mismo país



¿Cómo participar en RIPE Atlas?



- Hospedar un probe o un anchor (opcional)
- Crear una cuenta de acceso RIPE NCC
- Registrar el probe (si se opto para hospedar uno)
- Obtener créditos
- Crear mediciones
- Troubleshooting y monitoreo de tu red

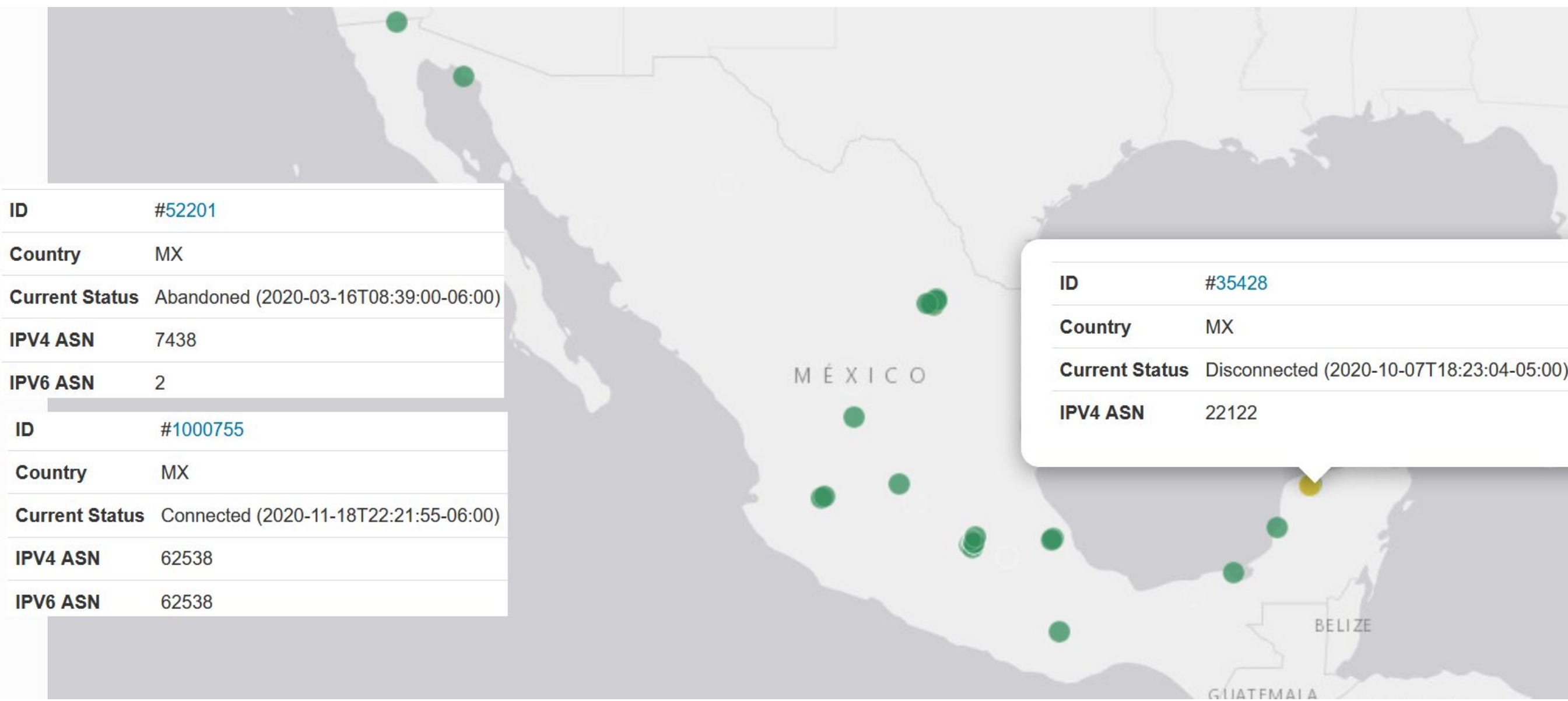
RIPE Atlas community



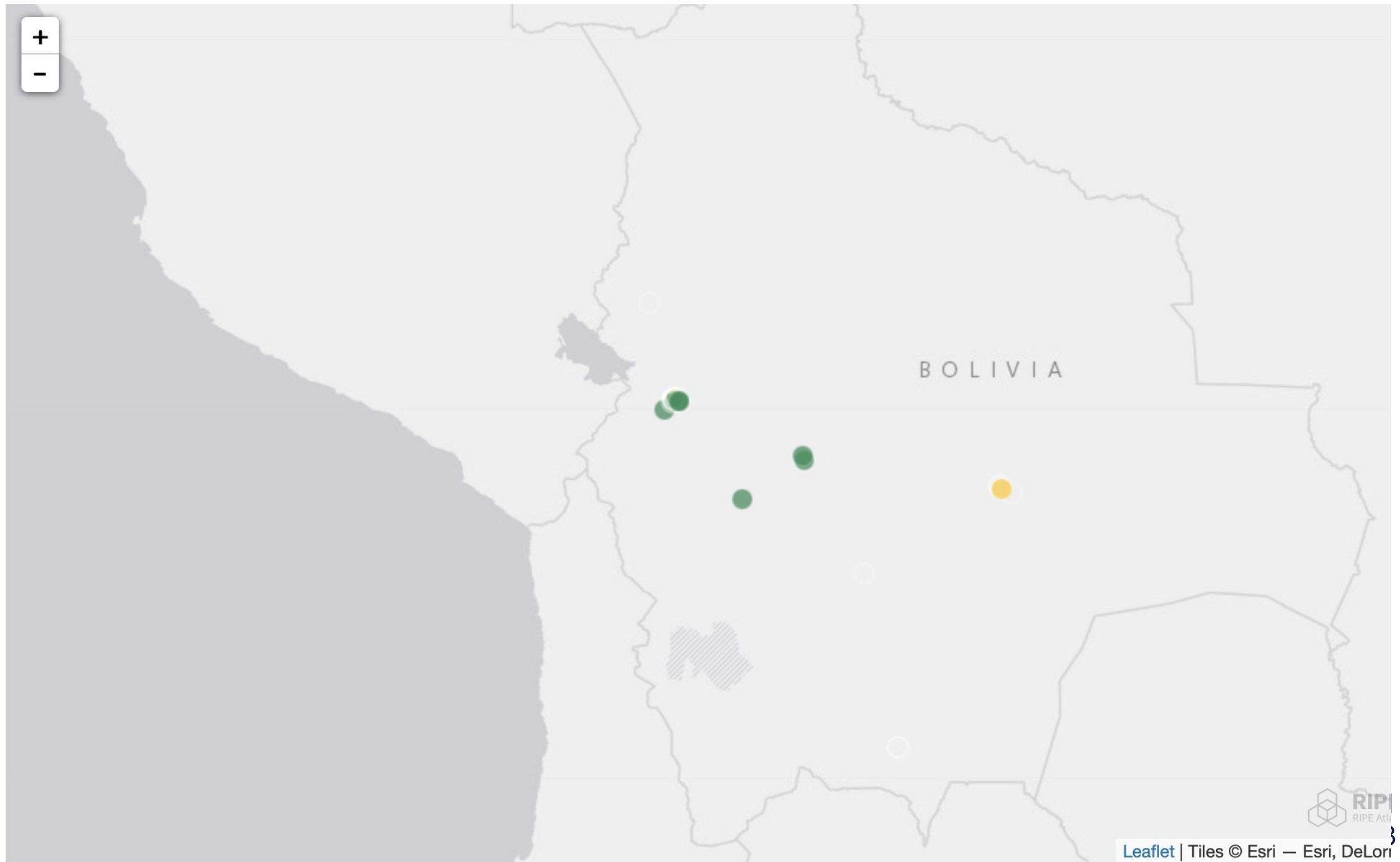
- **Sponsors**
- **Ambassadors (Embajadores)**
Ayudan a distribuir probes en eventos y en otros países, dan presentaciones, etc.
- Estas interesado en dar un **webinar** en tu idioma en tu país? Contáctanos! mgalante@ripe.net y lhestina@ripe.net
- **Desarrolladores**
- **Operadores de red**
- **Investigadores**



Probes RIPE Atlas _ México



Probes RIPE Atlas _ Bolivia



Connected: 12 Disconnected: 5 Abandoned: 71

Probes RIPE Atlas _ México (27 de 67)



Conectadas 40%

RIPE Atlas						
Filter by id/asn/country/description Any Status IPv4/v6 Mexico (67)						
Public Login to see more						
Id	ASN v4	ASN v6	Country	Description	Connection Status	
1000755	62538	62538		AS62538 (BJX)	9 minutes	
55230	6503			Santa Catarina, Nuevo León (MTY)	19 hours, 41 minutes	
52201	7438	2		TELEFONICA DFN MEXICO	8 months, 1 week	
51975	17072			Padrosys Probe MX	1 day, 11 hours	
51746	22884			UNIVERSIDAD AUTÓNOMA DEL CARMEN	1 day, 11 hours	
51596	28548				3 days, 20 hours	
51510	17072	22884		Probe Atlas-TP	3 months	
51328	8151	8151		Guadalupe, Zacatecas (ZCL)	1 week, 1 day	
35569	32098			RIPE UACH	1 year, 11 months	
35568	8151			TP-Link TL-MR3020	1 year, 10 months	

Ejemplo de Probe RIPE Atlas _ México



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RIPE Atlas

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Home

About RIPE Atlas

Get Involved

Probes and Anchors

Probes

Anchors

Measurements, Maps...

Resources

RIPE NCC Members

Welcome to the brand new RIPE Atlas User Interface and new Docs Site!

[Take me to the docs](#)

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GeneralNetworkBuilt-insUDMs

General Information

Id32139

Architecturetl-mr3020

Firmware Version4760 (1100)

Router Type

Shared PubliclyYes

User Tags

System Tags

IPv6 Stable 1d

IPv4 Stable 1d

IPv6 Works

IPv4 Works

IPv4 Stable 30d

Resolves AAAA Correctly

Resolves A Correctly

IPv6 Capable

Connection & Traffic

●Bits/s○Packets/s

Connected Time

📶 1 week, 2 days

Firmware #32139

4760

Architecture tl-mr3020

The displayed location is approximated to protect the probe host's privacy.

RIPE Atlas Software Probes

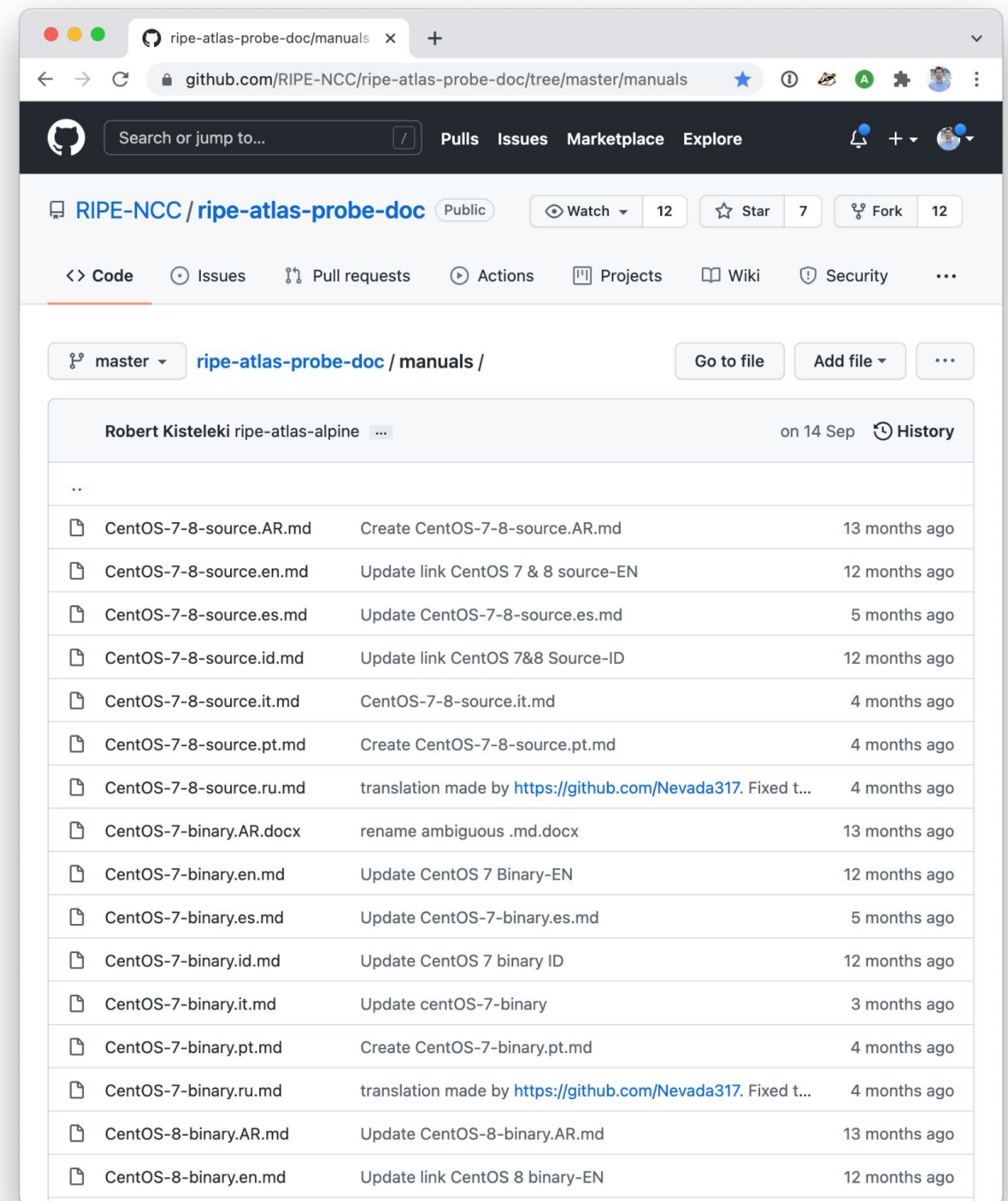


- https://atlas.ripe.net/docs/software-probe/?pk_vid=90c4319d858d2dd716054947510aa1af
- <https://atlas.ripe.net/apply/swprobe/>

RIPE Atlas Software Probes



- Donde sea difícil llegar con hardware
- Documentación
 - Sistema operativos donde instalar el probe
 - CentOS 7
 - CentOS 8
 - Debian (9 and 10) y Raspbian
 - Docker

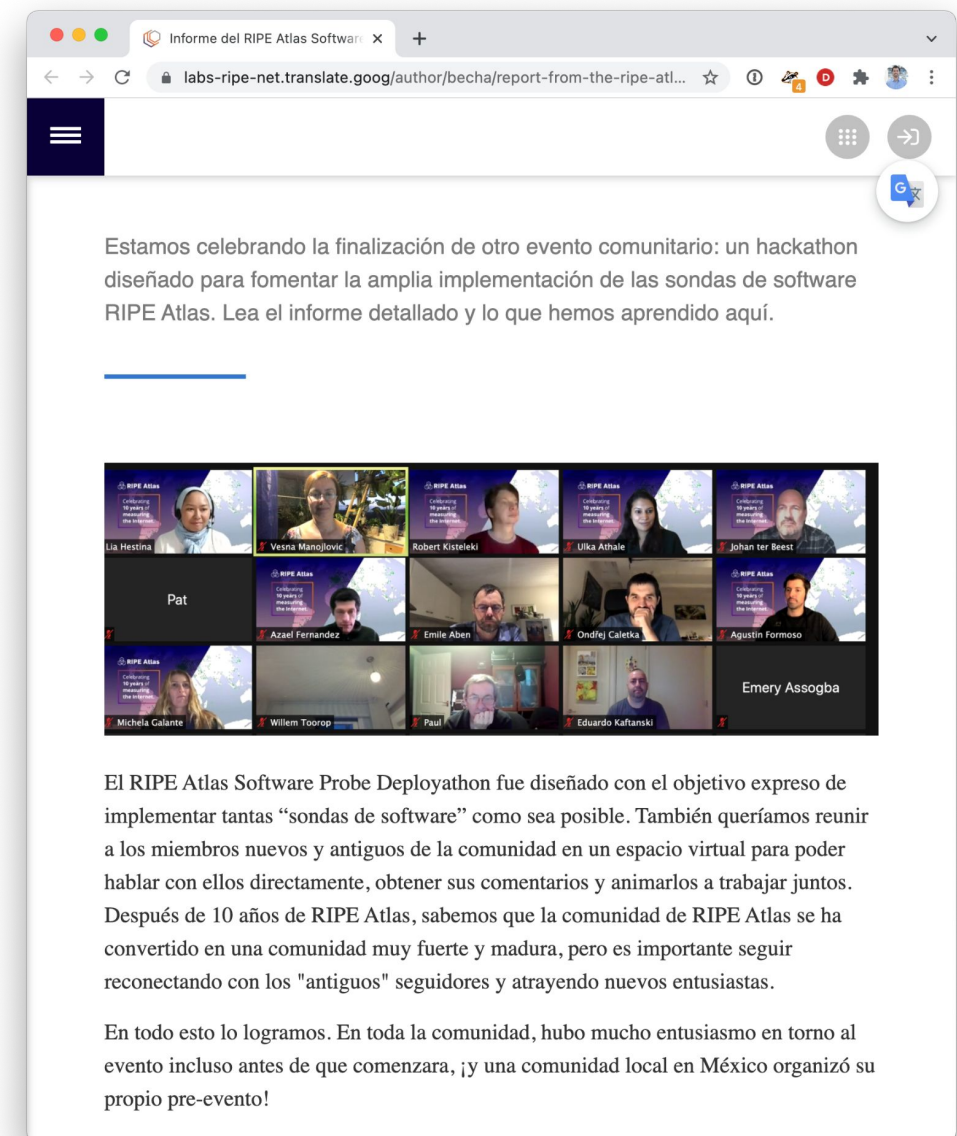


En español: buscar los archivos .es.md

RIPE Atlas Software Probes



- Es sencillo... y divertido 
- Conectada a Internet (24/7)
- Resultados comparables con las hardware probes (artículo [en inglés](#) y [traducción a español](#))
- Recomendable: poder hacer copy-paste entre la terminal y un navegador.



[Deployathon 2020](#)
([enlace en español](#))

Proceso para tener un software probe



1. Tener una cuenta de [RIPE Access](#)
2. Tener una máquina donde instalar la sonda
3. Realizar el proceso de instalación
 - a. Juntos el 16 de Noviembre 
4. Registrar la sonda recién instalada
5. Esperar el mail de confirmación
 - a. Puede tardar unos 15 min en llegar

Contactar con RIPE Atlas



- <https://atlas.ripe.net>
- Mailing list de usuarios: ripe-atlas@ripe.net
- Artículos & updates sobre RIPE Labs:
<https://labs.ripe.net/atlas>
- Preguntas y bugs: atlas@ripe.net
- Twitter: [@RIPENCC](#) [#RIPEAtlas](#)

Referencias



- atlas.ripe.net
- [Get involved](#)
- [About RIPE Atlas anchors](#)
- [VM anchors requirements and installation instructions](#)
- [Software probes documentation](#)



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Preguntas?

Noviembre 2021