



**RIPE
NCC**

RIPE NCC Basic Measurements Tools Tutorial

RIPE 69 - London - November 2014

- Introduction to RIPEstat
- More about widgets
- List of widgets
 - Exercise: Querying for a Resource
- Visualising BGP Routing Information
 - Exercise: BGPlay
- Handling abuse
 - Exercise: Handling Abuse
- Comparing Results



- **RIPE NCC**
- **Located in Amsterdam**
- **Not-for-profit organisation**
- **One of the five Regional Internet Registries (RIRs)**
- **10,000+ members**

Introduction to RIPEstat



One interface for viewing all Internet number resource data

“One-stop shop”



Search **RIPEstat**

Enter an IP address/prefix, ASN, country code or hostname



Your network: AS3333, 2001:67c:2e8::/48

e.g.: IPv4 prefix/range, IPv6, ASN

- **RIPE Database**
- **Other RIR data**
- **BGP routing data (RIS)**
- **Active measurements (RIPE Atlas, DNSMON)**
- **Geolocation (third-party)**
- **Blacklist data (third-party)**
- **More...**

- IPv6 address
- IPv4 address
- ASN
- Hostname
- Country code

- **For your own network:**
 - Is someone else announcing my prefix?
 - How visible is my new IPv6 network?
 - Is my BGP routing consistent with Routing Registry?
 - Was my prefix visible yesterday in Tokyo?
- **For viewing other networks:**
 - IPv6 in my country compared to neighbours
 - Who has more peers, AS1 or AS2?
 - How does the upstream outage look?
 - Is the prefix/ASN that I want already announced?

RIPEstat shows
your own IP/ASN


RIPEstat Home • About RIPEstat • Documentation • Use Cases • Login

You are here: Home > Data & Tools > RIPEstat

Search RIPEstat

Your network: AS33333, 2001:67c:2e8::/48 e.g.: IPv4 prefix/range, IPv6, ASN

BGPlay is back!



Origin AS Collector peer Other Dynamic path

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- FAQ
- Data Sources
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- Feedback

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- Interfaces & APIs
- Demos
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- Changelog

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- Notable Network Events
- Compare Results
- Looking for Abuse Information
- Global Internet Statistics

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RIPEstat Search

permalink

More tabs with results

- At a Glance (4)
- Routing (1)
- DNS (1)
- Anti Abuse (1)
- Database (5)
- Geographic (2)
- Activity (2)
- Suggestions (1)
- MyView

Widgets

AS Overview (AS3333)

Announced

Holder of this ASN:
RIPE-NCC-AS Reseaux IP
Europeens Network
Coordination Centre (RIPE
NCC),NL

Showing results for AS3333 as of 2014-07-25 08:00:00 UTC

source data embed code permalink info

Geoloc (AS3333)

Map | Satellite

Map Data Terms of Use Report a map error

Geoloc details

Data is based on MaxMind's GeoLite City data set and valid for the stated query time (see below)

Showing results for AS3333 as of 2014-07-25 08:00:00 UTC

source data embed code permalink info

Registry Browser (AS3333)

Last updated on 2014-05-27 at 11:51:38 UTC.

aut-num: AS3333

as-name	RIPE-NCC-AS
descr	Reseaux IP Europeens Network Coordination Centre (RIPE NCC)
org	ORG-RIEN1-RIPE
admin-c	JDR-RIPE
admin-c	BRD-RIPE
tech-c	OPS4-RIPE
mnt-by	RIPE-NCC-END-MNT
mnt-by	RIPE-NCC-MNT

Showing results for AS3333 as of 2014-07-25 13:32:47 UTC

RIPE NCC members can access historical information by signing in with their LIR's RIPE NCC Access account.

source data embed code permalink info

Routing Status (AS3333)

At 2014-07-25 08:00:00 UTC, AS3333 was visible to 100% of 96 IPv4 and 100% of 95 IPv6 RIS full peers.

© First ever seen as origin announcing 193.0.0.0/21, on 2004-01-03 00:00:00 UTC.

Originated IPv4 prefixes: 6
Originated IPv6 prefixes: 1
Observed BGP neighbours: 509
Address space announced (IPv4): 4608 IPs
Address space announced (IPv6): equiv. to 1 /48s

Advanced Settings

Showing results for AS3333 as of 2014-07-25 08:00:00 UTC

Results exclude routes with very low visibility (less than 3 RIS peers)

source data embed code permalink info



Warm-up Exercise

Query Country Name



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More About Widgets



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<https://stat.ripe.net/widget/list>




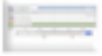








RIPEstat Widgets

This is a complete list of all of the widgets that RIPEstat offers. Each of these widgets can be accessed using the links below.

When you view a widget you can also get code for **embedding** it in your own pages. The full procedure for embedding and configuring widgets is described in the [Widget API Documentation](#).

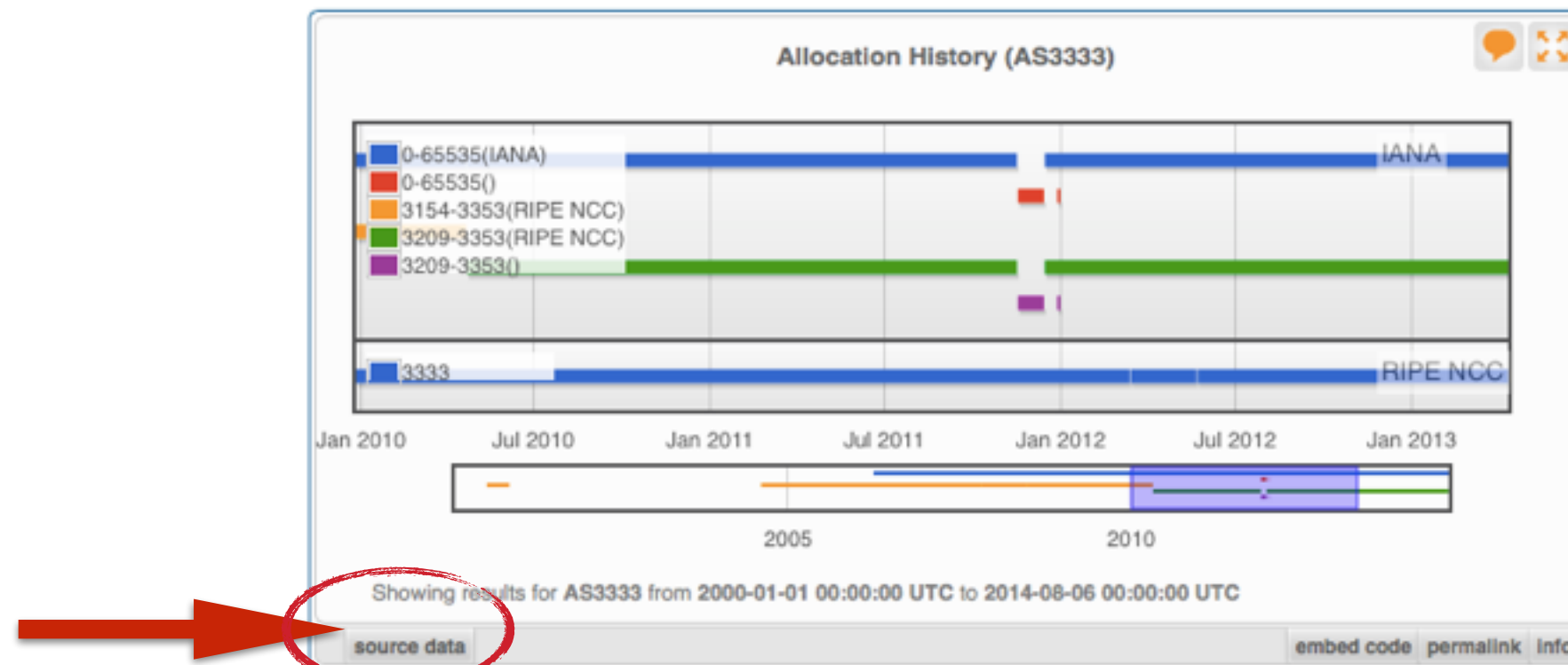
Show entries

Search:

Title (show slug)	Example	Prefix	IP address	ASN	Hostname	Country code
Abuse Contact Finder		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Address Space Hierarchy		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Address Space Usage		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Allocation History		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Announced Prefixes		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AS Overview		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AS Path Length		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AS Routing Consistency		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ASN Neighbours		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ASN Neighbours History		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
RIPE Atlas Probes		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
RIPE Atlas Measurement Targets		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Get the data behind the widget!

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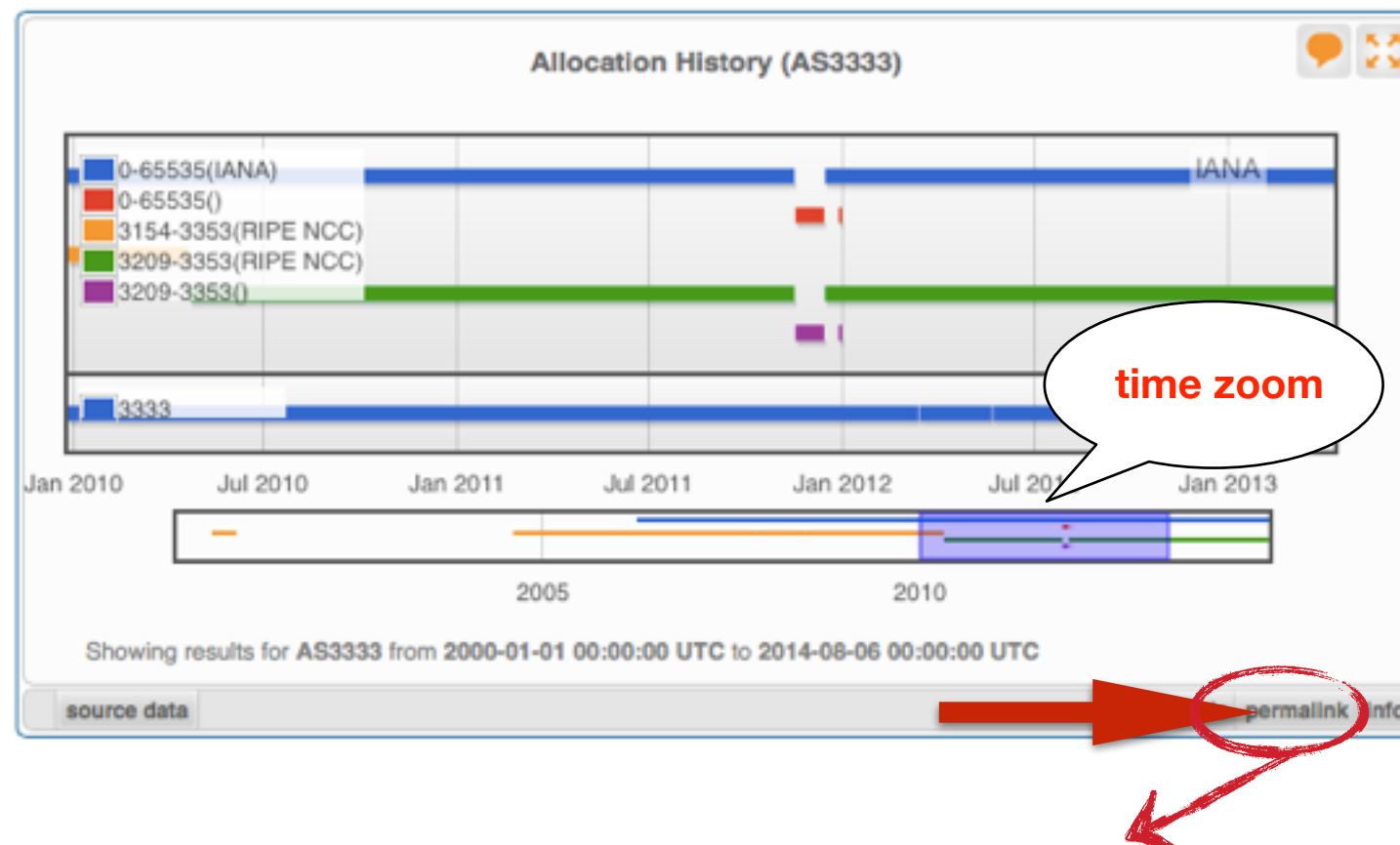


source data embed code permalink info

Get the data behind this widget with the Data API

<https://stat.ripe.net/data/allocation-history/data.json?resource=AS3333>

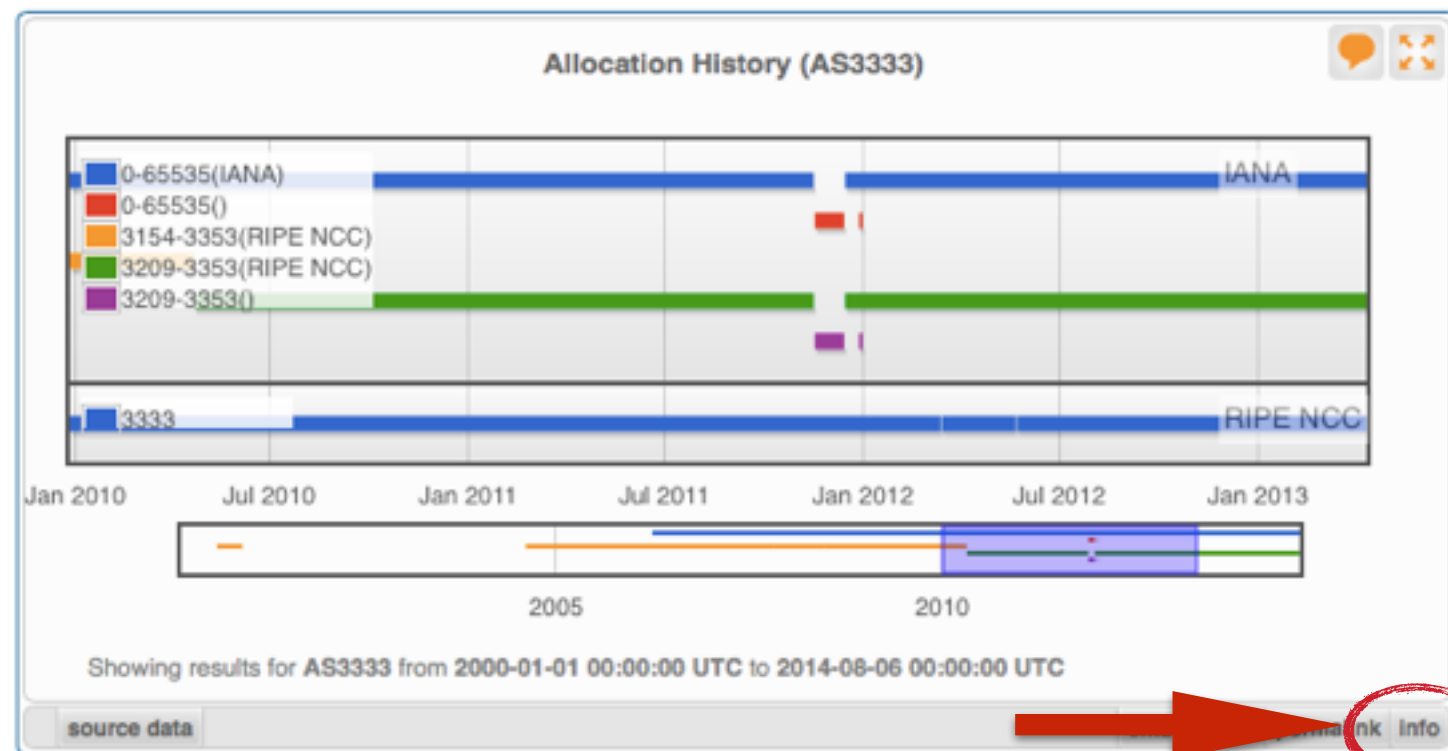
```
{
  "cached": true,
  "data": {
    "query_endtime": "2014-08-06T00:00:00",
    "query_starttime": "2000-01-01T00:00:00",
    "resource": "3333",
    "results": {
      "IANA": [
        {
          "resource": "0-65535",
          "status": "IANA",
          "timelines": [
            {
              "endtime": "2007-10-11T00:00:00",
              "starttime": "2007-10-11T00:00:00"
            },
            {
              "endtime": "2008-11-03T00:00:00",
              "starttime": "2007-10-27T00:00:00"
            }
          ]
        }
      ]
    }
  }
}
```



- Immutable shareable URL for each result!
- URL includes:
 - Zoom
 - History

Where's the data from?

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source data embed code permalink info


Content Explanation

What does this widget show?
Allocation History displays information about allocations and direct assignments of prefixes or AS numbers.

How can the visualisation be interpreted?
When the queried resource was a prefix, the graph will show how that prefix and related (more or less specific prefixes) were allocated over time. When the queried resource was an ASN, the graph will show the allocation of that ASN.
The legend will display all resources, including those which are not announced during the time range displayed. It is possible to change the displayed time period with the timeline selector underneath the graph.

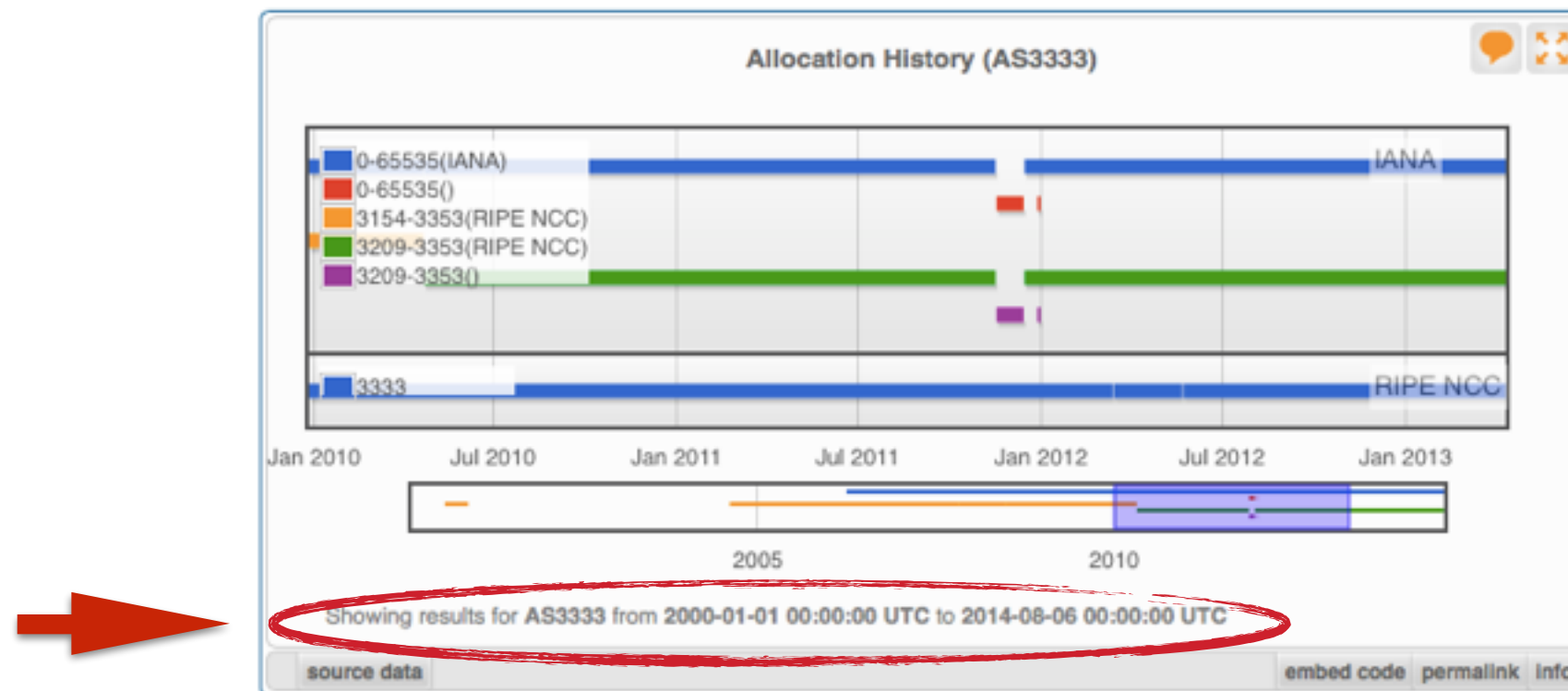


The shaded area is displayed in the graph. This area can be adjusted by moving to the left or right end of the shaded area and then dragging it to the desired location. It is possible to change not only the start and end time, but also the length of the period which is shown.



What is the data source?
The RIR statistics files summarise the current state of allocations and assignments of Internet number resources. They are intended to provide a snapshot of the status of Internet number resources, without any transactional or historical details. Find details for each RIR here:

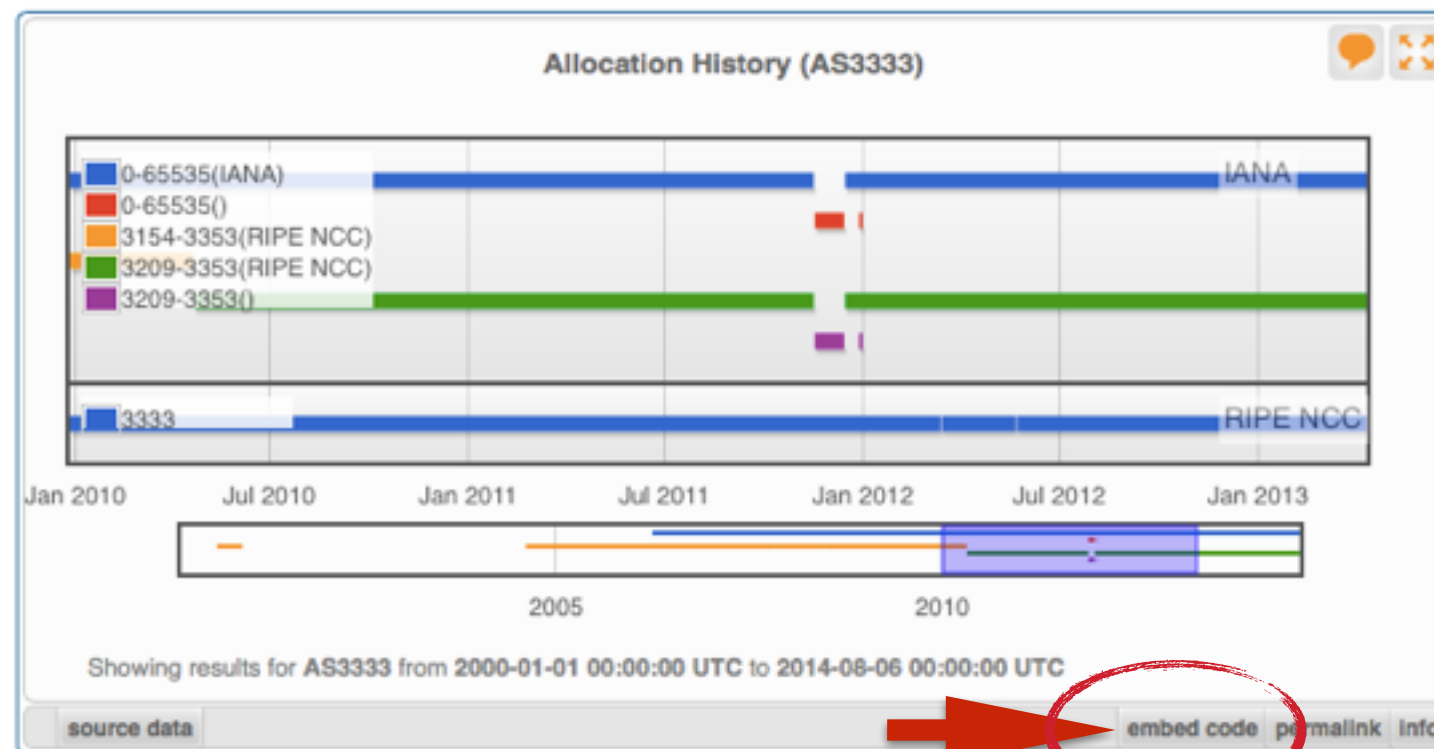
- AFRINIC
- APNIC
- ARIN
- LACNIC
- RIPE NCC



- Timestamp and time period of data
- Different widgets = different data update frequency
- Can be adjusted in most cases
 - Limits: Different maximum granularities

Embed the widget!

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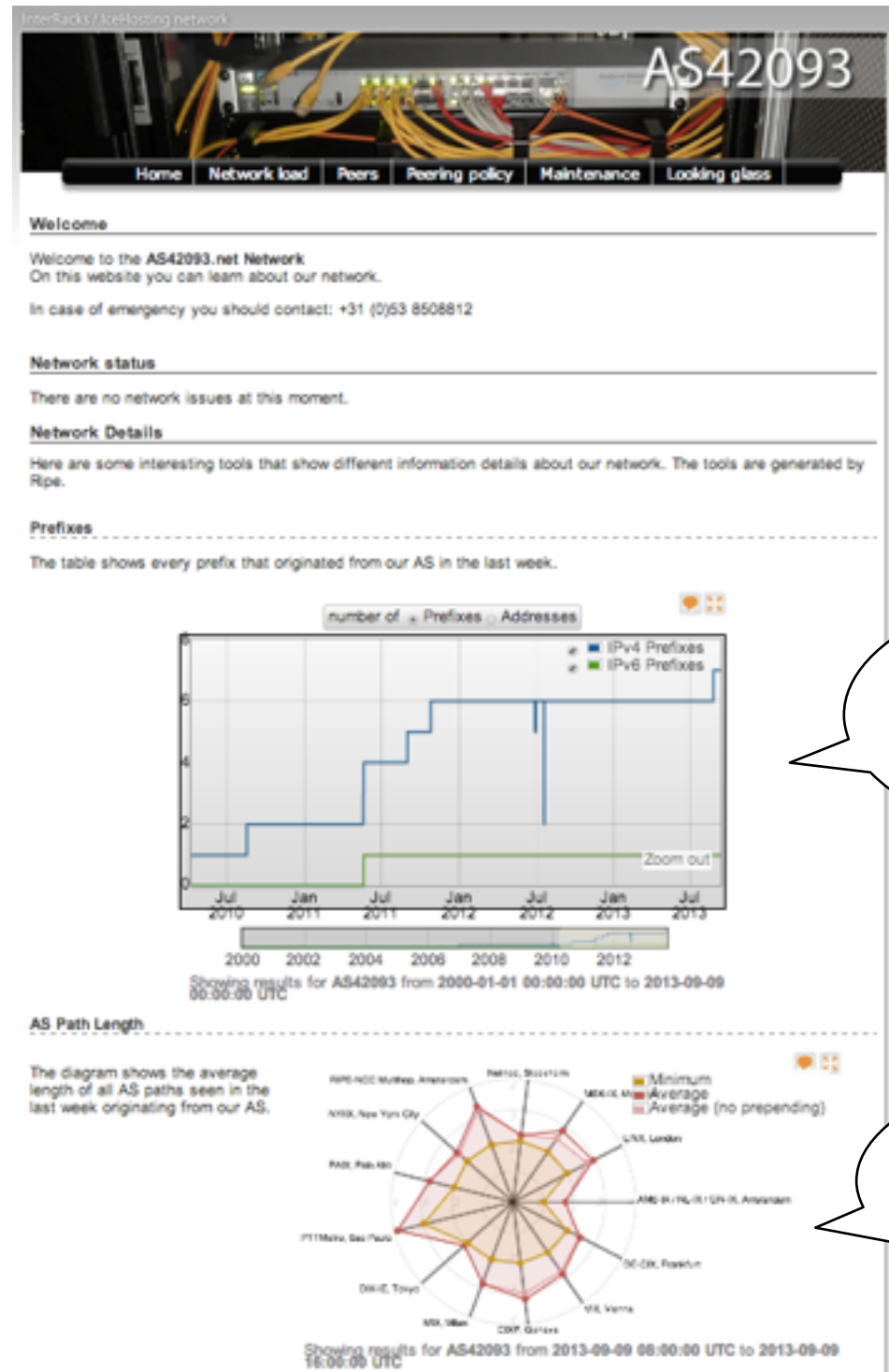
source data embed code permalink info

Embed this widget on your page

```
<script src="https://stat.ripe.net/widgets/widget_api.js"></script>
<div class="statwdgtauto"><script>ripestat.init("allocation-history",
{"resource":"AS3333"},null,{"size":"medium","disable":["controls"]})</script>
</div>
```

Copy and paste this code into an HTML webpage. Note: widget_api.js (the 1st line) only needs to be included once per page.

For more usage details please view the RIPEstat Widget API documentation.



This ISP embedded widgets on its page

Prefix Count widget

AS Path Length widget

Exercise: Querying for a resource



- What network announces 140.78.50.90?
- Is 193.3.4.2 routed?
- In which country is 91.229.42.0/23 used?
 - What is its corresponding INETNUM object?
- What widget provides real-time routing status?
- By what percent did the number of prefixes announced within Greece increase from July 2012 to July 2014
 - Compare IPv4 and IPv6
- How would you share interesting network events with a colleague?



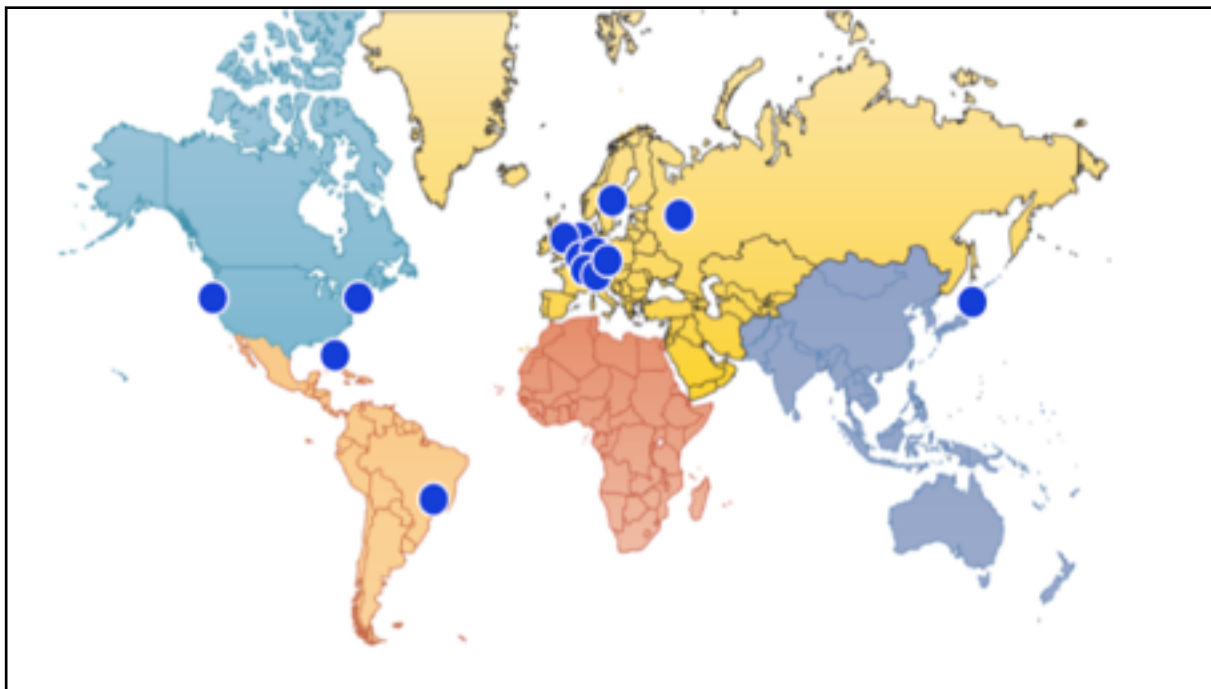
Visualising BGP Routing Information



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- **IP or ASN queried?**
 - You get different widgets!
- **ASN often visualised based on the prefixes that it announces**

- RIPE NCC has been collecting BGP information since 1999
 - Raw data: ris.ripe.net
- RIS has 15 route collectors and 600+ peers
- RIPEstat visualises RIS data



At a Glance

Routing

DNS

Anti Abuse

Databases

Geographic (2)

Activity (4)

Suggestions (1)

+ MyView ?

Prefix Overview (140.78.0.0/16)


Announced

This prefix is announced by
AS1205
JKU-LINZ-AS University Linz,AT
and is part of 140.0.0.0/8, Legacy space,
administered by ARIN.

Showing results for 140.78.0.0/16 as of 2014-08-13 08:00:00 UTC

source data embed code permalink info

Geoloc (140.78.0.0/16)



Geoloc details

Data is based on MaxMind's GeoLite City data set and valid for the stated query time (see below)

Showing results for 140.78.0.0/16 as of 2014-08-01 00:00:00 UTC

source data embed code permalink info

Registry Browser (140.78.0.0/16)

Last updated on 2014-05-27 at 12:53:54 UTC. Show more

inetnum:
140.78.0.0/16

netname JKU-LAN
descr Johannes Kepler University
country AT
org ORG-JKU1-RIPE
admin-c ULAC1-RIPE
tech-c ULNA1-RIPE
status LEGACY
mnt-by AS1205-MNT
mnt-by ACONET-LIR-MNT

Showing results for 140.78.0.0/16 as of 2014-08-13 13:26:45 UTC

RIPE NCC members can access historical information by signing in with their LIR's RIPE NCC Access account.

source data embed code permalink info

Routing Status (140.78.0.0/16)

At 2014-08-13 08:00:00 UTC, 140.78.0.0/16 was 100% visible (by 97 of 97 RIS full peers).

First ever seen before Jan 2004 (= beginning of available data).
Originated by: AS1205 (valid route object in RIPE)
No less-specific covering prefixes.

Advanced Settings
Compare to 1 week earlier | ☒ Exclude low visibility routes

Showing results for 140.78.0.0/16 as of 2014-08-13 08:00:00 UTC

Results exclude routes with very low visibility (less than 3 RIS peers seeing).

source data embed code permalink info

Announced?
By which AS?

Registered in
the RIPE
Database?

Announced?
By which AS?
What % visible?
Since when?

At a Glance (4)

AS Overview (AS1205)

Announced

Holder of this ASN:
JKU-LINZ-AS University Linz,AT

Showing results for AS1205 as of 2014-08-01 00:00:00 UTC

source data embed code permalink info

Registry Browser (AS1205)

Last updated on 2014-05-27 at 11:47:51 UTC.

aut-num: AS1205 Show more

as-name JKU-LINZ-AS
org ORG-JKU1-RIPE
descr University Linz
admin-c ULAC1-RIPE
tech-c ULNA1-RIPE
mnt-by AS1205-MNT
mnt-by ACONET-LIR-MNT

Showing results for AS1205 as of 2014-08-13 13:49:15 UTC

RIPE NCC members can access historical information by signing in with their LIR's RIPE NCC Access account.

source data embed code permalink info

Geoloc (AS1205)

Map Satellite

100.00%

Map Data Terms of Use Report a map error

Geoloc details

Data is based on MaxMind's GeoLite City data set and valid for the stated query time (see below)

Showing results for AS1205 as of 2014-08-01 00:00:00 UTC

source data embed code permalink info

Routing Status (AS1205)

At 2014-08-13 08:00:00 UTC, AS1205 was visible to 100% of 97 IPv4 and 2% of 95 IPv6 RIS full peers.

First ever seen as origin announcing 193.186.172.0/22, on 2004-01-03 00:00:00 UTC.

Originated IPv4 prefixes: 3
Originated IPv6 prefixes: 0
Observed BGP neighbours: 2
Address space announced (IPv4): 67584 IPs
Address space announced (IPv6): equiv. to 0 /48s

Advanced Settings

Compare to 1 week earlier ☒ Exclude low visibility routes

Showing results for AS1205 as of 2014-08-13 08:00:00 UTC

Results exclude routes with very low visibility (less than 3 RIS peers seeing).

Given query time (2014-08-13 08:00:00 UTC) has been changed because it is earlier than the time there is data available for!

source data embed code permalink info

The rest is the same
as for a prefix

Announced Prefixes (AS1205)

Show 10 entries Search:

Prefix	First Seen ?	Last Seen ?
193.186.176.0/22	2014-07-30 08:00:00 UTC	2014-08-13 08:00:00 UTC
193.186.172.0/22	2014-07-30 08:00:00 UTC	2014-08-13 08:00:00 UTC
140.78.0.0/16	2014-07-30 08:00:00 UTC	2014-08-13 08:00:00 UTC

Showing 1 to 3 of 3 entries

[Click here to load the entire history, starting from 2004-01-01 00:00 UTC!](#)

[Advanced Settings](#)

☒ Exclude low visibility prefixes

Showing results for AS1205 from 2014-07-30 08:00:00 UTC to 2014-08-13 08:00:00 UTC

Results exclude routes with very low visibility (less than 3 RIS peers seeing).

source data embed code permalink info

IPv4 vs IPv6?
Sort by prefix
or
Search "." vs "::"

Time period
shown in widget
Default:
last two weeks

Announced Prefixes (AS1205)

Show 10 entries

Search:

Prefix	First Seen ?	Last Seen ?
193.186.176.0/22	2004-01-22 16:00:00 UTC	2014-08-13 08:00:00 UTC
193.186.172.0/22	2004-01-01 00:00:00 UTC	2014-08-13 08:00:00 UTC
193.171.8.0/24	2008-12-09 08:00:00 UTC	2008-12-11 16:00:00 UTC
193.171.32.0/20	2008-12-09 08:00:00 UTC	2008-12-11 16:00:00 UTC
193.171.200.0/21	2008-12-09 08:00:00 UTC	2008-12-11 16:00:00 UTC
193.170.32.0/21	2008-12-09 08:00:00 UTC	2008-12-11 16:00:00 UTC
140.78.0.0/16	2004-01-01 00:00:00 UTC	2014-08-13 08:00:00 UTC

Showing 1 to 7 of 7 entries

Advanced Settings

☒ Exclude low visibility prefixes

Showing results for AS1205 from 2004-01-01 00:00:00 UTC to 2014-08-13 08:00:00 UTC

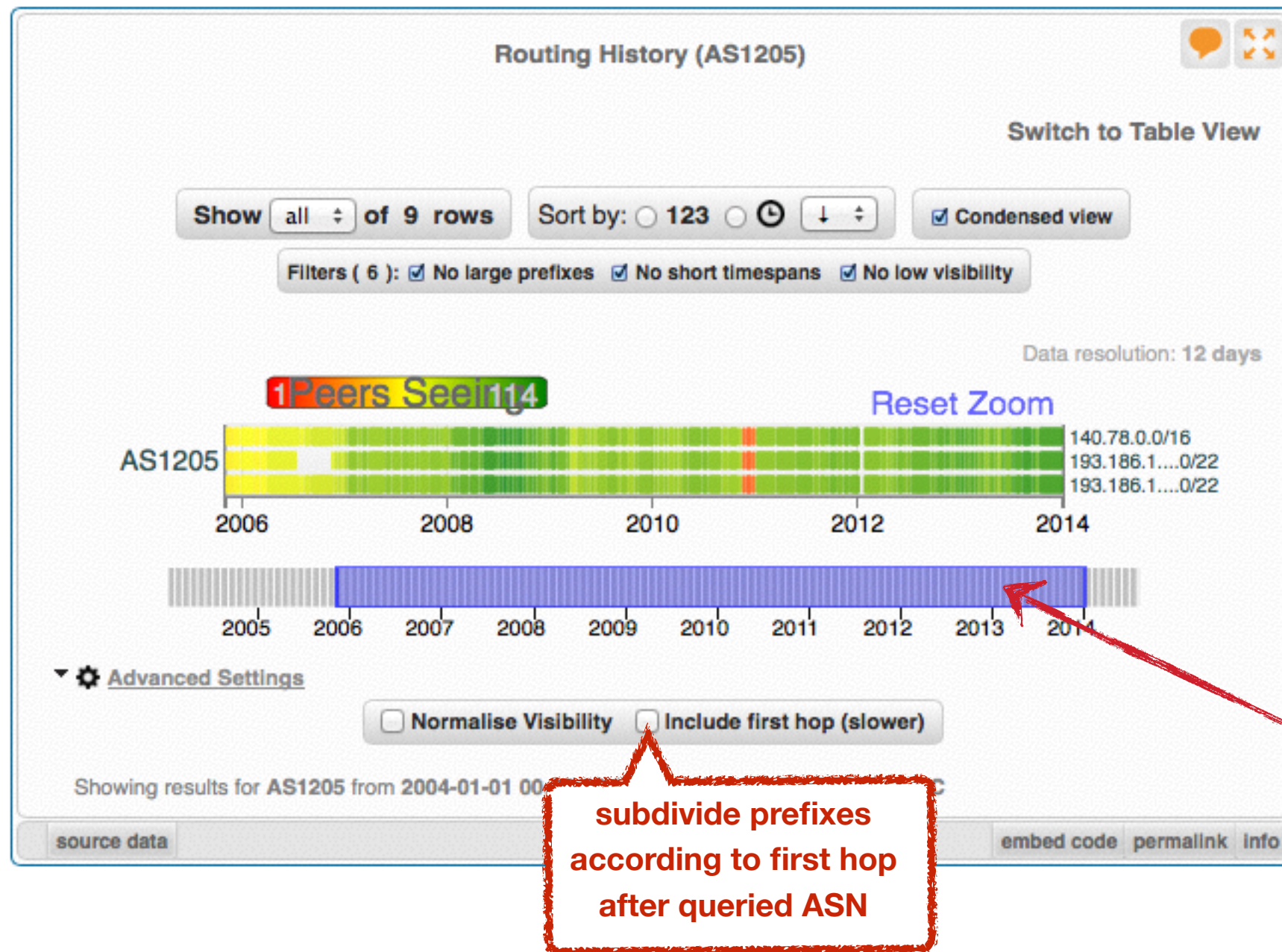
Results exclude routes with very low visibility (less than 3 RIS peers seeing).

source data

embed code

permalink

info



Time scale
selection

- See how your network is routed
 - Announcements
 - Withdrawals
 - Path changes
- BGPlay shows routing history
 - Animated graphic
 - Highly interactive

<https://stat.ripe.net/widget/bgplay>

BGP event,
ASN or ASN path
details

click play

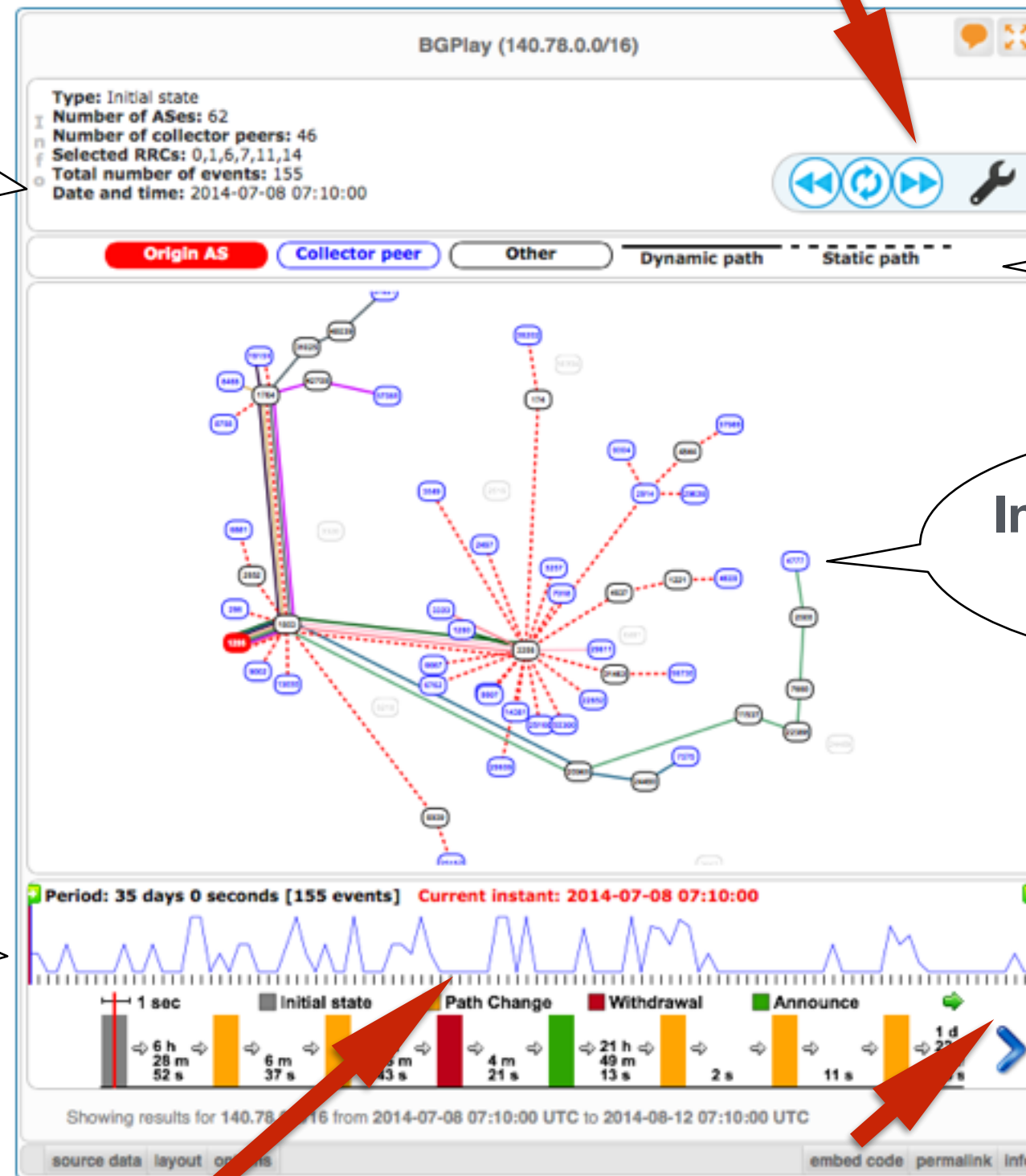
Control panel:

- Covered time period
- RRC selection

Interactive animated
graph

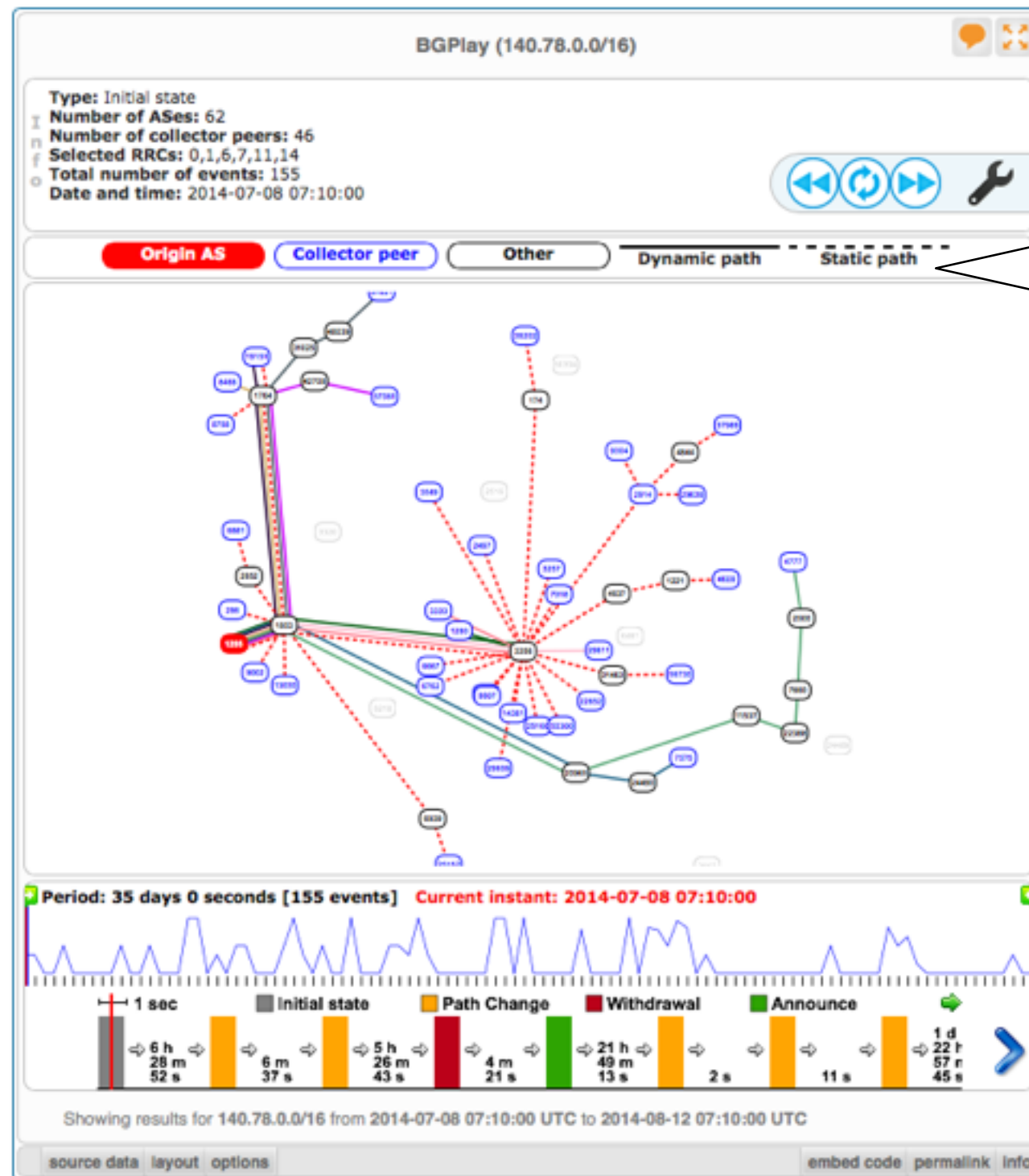
Control
timeline

Detailed timeline
with events



click play

click play movie



Examples: (2013/8/28-30)

- Prefix with announcements & withdrawals:
84.205.64.0/24
- Check IPv6 connectivity:
2001:67c:2e8::/48
- Multi-homed prefix:
199.7.80.0/24
- BGP hijacking
2008-02-28: 208.65.153.0/24
Youtube traffic by Pakistan Telecom AS17557
- Blackholing:
193.33.96.64

Exercise: BGPlay



- Find the up-stream provider for AS1205
- Is AS3333 multi-homed?
- Check the IPv6 connectivity of your own network

Reporting Abuse



- **Who is attacking your network?**
- **What kind of attack is it?**

- Spam or unauthorised access?
 - Find IP in message headers or logs
- Want to contact their admin?
 - Find the correct email for reporting abuse
- RIPE Database
 - Contact details for every ASN and IP address
 - In Europe, the Middle East and parts of Central Asia

<https://labs.ripe.net/Members/cteusche/finding-anti-abuse-contact-information-with-ripestat>

- Take action with the Abuse Contact Finder

The screenshot shows the RIPEstat Abuse Contact Finder interface. At the top, a breadcrumb trail reads: RIPEstat Home • About RIPEstat • Documentation • Use Cases • Looking For Abuse Information. A red callout bubble points to the 'Use Cases' link, containing the text: 'Go to “Use Cases” > “Looking for Abuse Information”'. Below the breadcrumb, the page title is 'RIPEstat Abuse Contact Finder'. A descriptive paragraph states: 'The RIPEstat Abuse Contact Finder may be able to help you find the email address that should be used to report network abuse originating from a particular IP address.' Two information boxes follow: the first says 'You can learn more about network abuse in general and what you can do to stop it on the RIPE N Abuse Information page.' and the second says 'You can learn more about how the RIPEstat Abuse Contact Finder works and how to report abuse on this tutorial on RIPE Labs.' A red callout bubble points to the second box, containing the text: 'In-depth information about abuse'. The main form area is titled 'Abuse Contact Finder' and features a text input field with the placeholder 'Enter an IP address'. A red callout bubble points to this field, containing the text: 'Enter IP address'. Below the input field are links for 'embed code', 'permanent link', and 'info'. At the bottom, a note states: 'For regular RIPEstat users: this widget, of course, can also be found on the regular result page in the “Anti Abuse” tab.'

Abuse Contact Finder (2001:67c:2e8::/48) **BETA**

Email-Contact

abuse@ripe.net

Contact-Quality-Rating

★★★★★ (5/5)

This contact can be used to report abuse.

☐ Show Complete Details
☐ Info for Resource Holders

Showing results for 2001:67c:2e8::/48 as of 2013-08-30 14:39:00 UTC

BETA Beta status: Please note that even highly rated contacts can be incorrect

source data embed code permalink info

Rating of the contact

Email contact to report abuse

Abuse Contact Finder (2001:67c:2e8::/48) **BETA**

Email-Contact

abuse@ripe.net

Contact-Quality-Rating

★★★★★ (5/5)

This contact can be used to report abuse.

☐ Show Complete Details
☐ Info for Resource Holders

Showing results for 2001:67c:2e8::/48 as of 2013-08-30 14:39:00 UTC

BETA Beta status: Please note that even highly rated contacts can be incorrect

source data embed code permalink info

Details about the resource and abuse contact:

☒ Show Complete Details

Details

- Results for

193.0.18.0-193.0.21.255 ⓘ
abuse@ripe.net from abuse-contact role

- Special Network Resource Information

This resource has been identified to be related to this information:
RIPE NCC PI Allocation

Held by:
n.a. ⓘ

- RIR Information

RIR	RIPE NCC	RIR's Whois	https://apps.db.ripe.net/search/query.html
-----	----------	-------------	---



Exercise: Handling Abuse



- **What is the abuse contact for 193.0.20.22**
 - Or the hotel network?
- **Check an IP address from your home network**
- **Discussion: What can you do in these cases:**
 - No abuse contact found
 - No response to an abuse report

Comparing Networks



- Want to peer with AS-X?
 - Learn by opening multiple widgets about AS-X
- Choosing upstream ?
 - Compare AS-X with AS-Y by opening same widget loaded with two different ASNs
- Internet outage in a country?
 - Open multiple country-related widgets in same view

https://labs.ripe.net/Members/suzanne_taylor_muzzin/ripestats-multiple-widget-and-resource-comparison

- Compare results in different widgets

RIPEstat Home • About RIPEstat • Documentation • Use Cases

You are here: Home > Data & Tools > RIPEstat

Search RIPEstat

Your network: AS3333, 2001:67c:2e8::/48 e.g.: IPv4 prefix/range, IPv6, ASN

Compare Results

Select up to six different widgets from the list to compare at one time. Different resources can be queried for each widget.

Select a widget Routing History

and a resource AS1205

+ Add Permalink

Go to “Use Cases” > “Compare Results”

Select widget

Select resource

Compare Results

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Compare Results

Select up to six different widgets from the list to compare at one time. Different resources can be queried.

Select a widget: **Routing History**
and a resource: **as3333**
[+ Add](#) [Permalink](#)

1 Select "Routing History" widget

2 enter "AS3333"

3

Routing History (as3333)
Switch to Table View
Show **all** of 9 rows

Routing History (as1205)
Switch to Table View
Show **all** of 9 rows

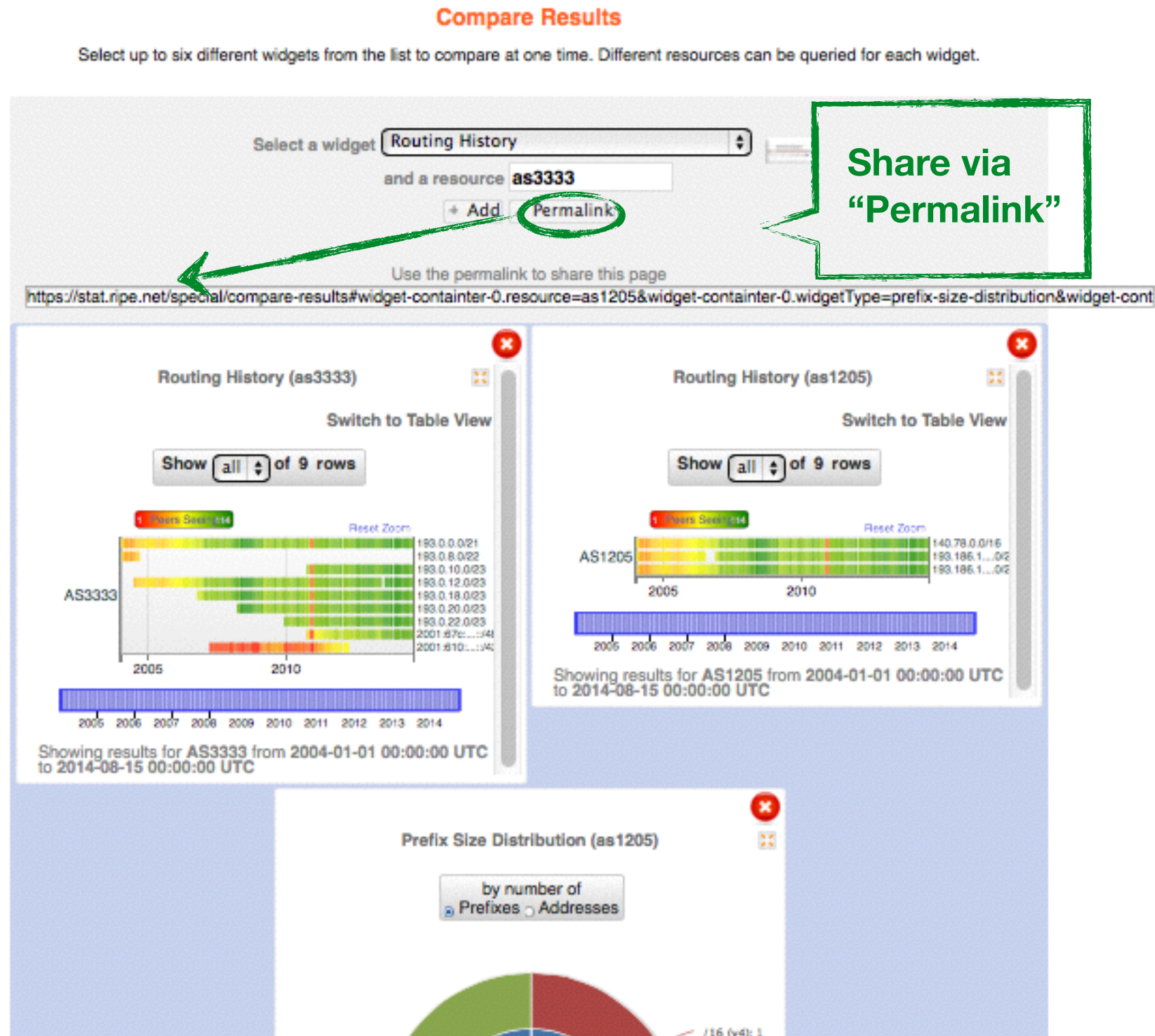
Prefix Size Distribution (as1205)
by number of
Prefixes - Addresses

Showing results for AS3333 from 2004-01-01 00:00:00 UTC to 2014-08-15 00:00:00 UTC

Showing results for AS1205 from 2004-01-01 00:00:00 UTC to 2014-08-15 00:00:00 UTC

Showing results for AS1205 as of 2014-08-15 08:00:00 UTC

Results exclude routes with very low visibility (less than 3 RIR peers seeing).



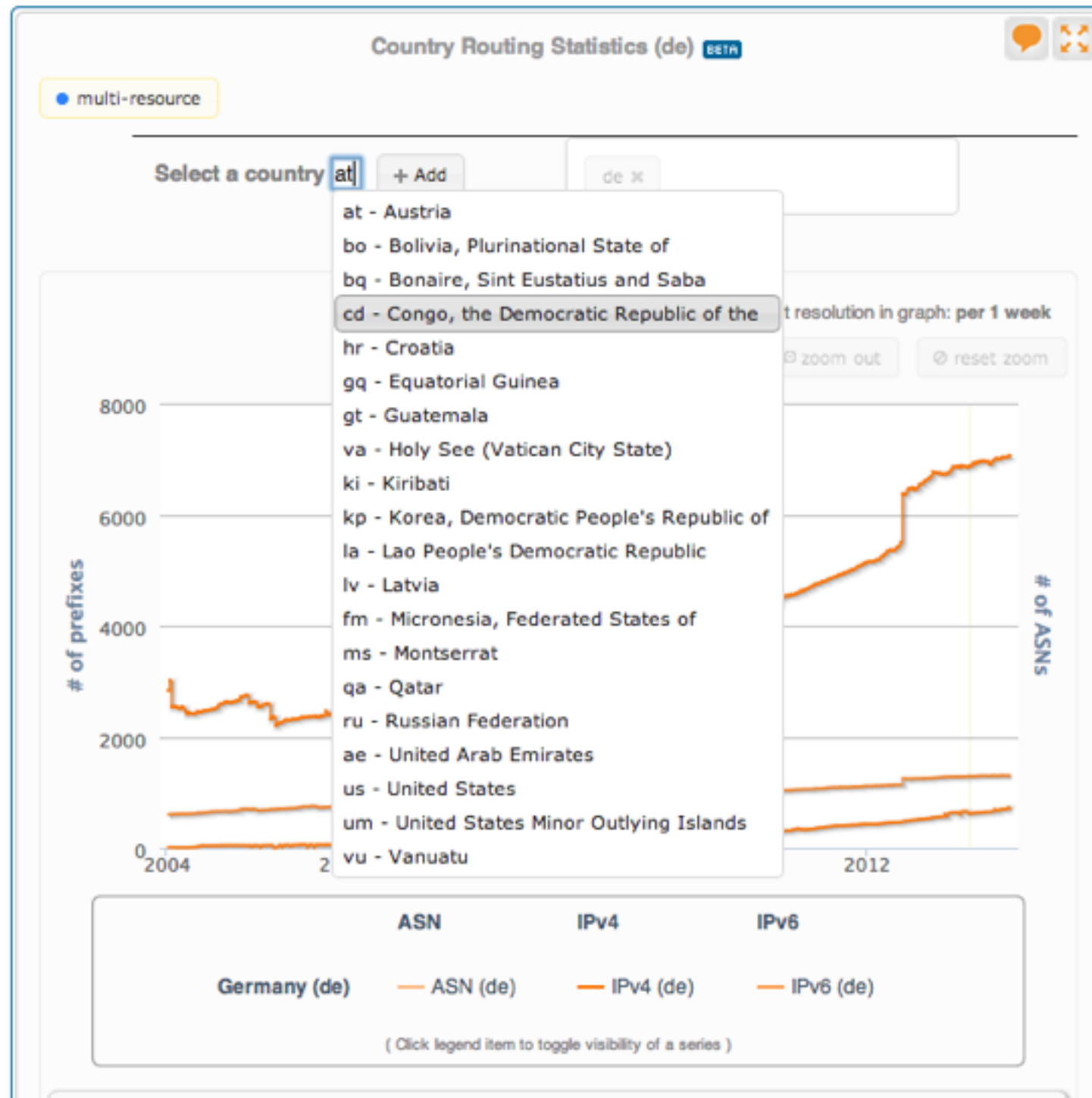
- No login required
- Add widgets **AND** input query for each widget (ASN or IP or...)
- It is a result page with widgets and query results
- Share it via a permanent link

- Compare the growth of ASNs in DE and NL
- See IPv6 adoption rate in four countries at the same time
- Analyse IP hijacking with 'BGP Update Activity Widget'

<https://labs.ripe.net/Members/wilhelm/bgp-leaks-in-indonesia>

https://labs.ripe.net/Members/suzanne_taylor_muzzin/new-in-ripestat-in-widget-comparison-and-monitoring

- Country Routing Statistics



Exercise: Comparing Results



- **Compare the number of announced prefixes for two networks over the past two years using the widget comparison page**
- **How does the Internet in Greece compare to the UK? Use in-widget comparison!**



RIPE Atlas



RIPE
NCC

- **Introduction to RIPE Atlas**
 - What you can get from RIPE Atlas as a visitor
- **Exploring public probes**
 - Live Demo
- **Finding public measurements**
 - Exercise: Find results

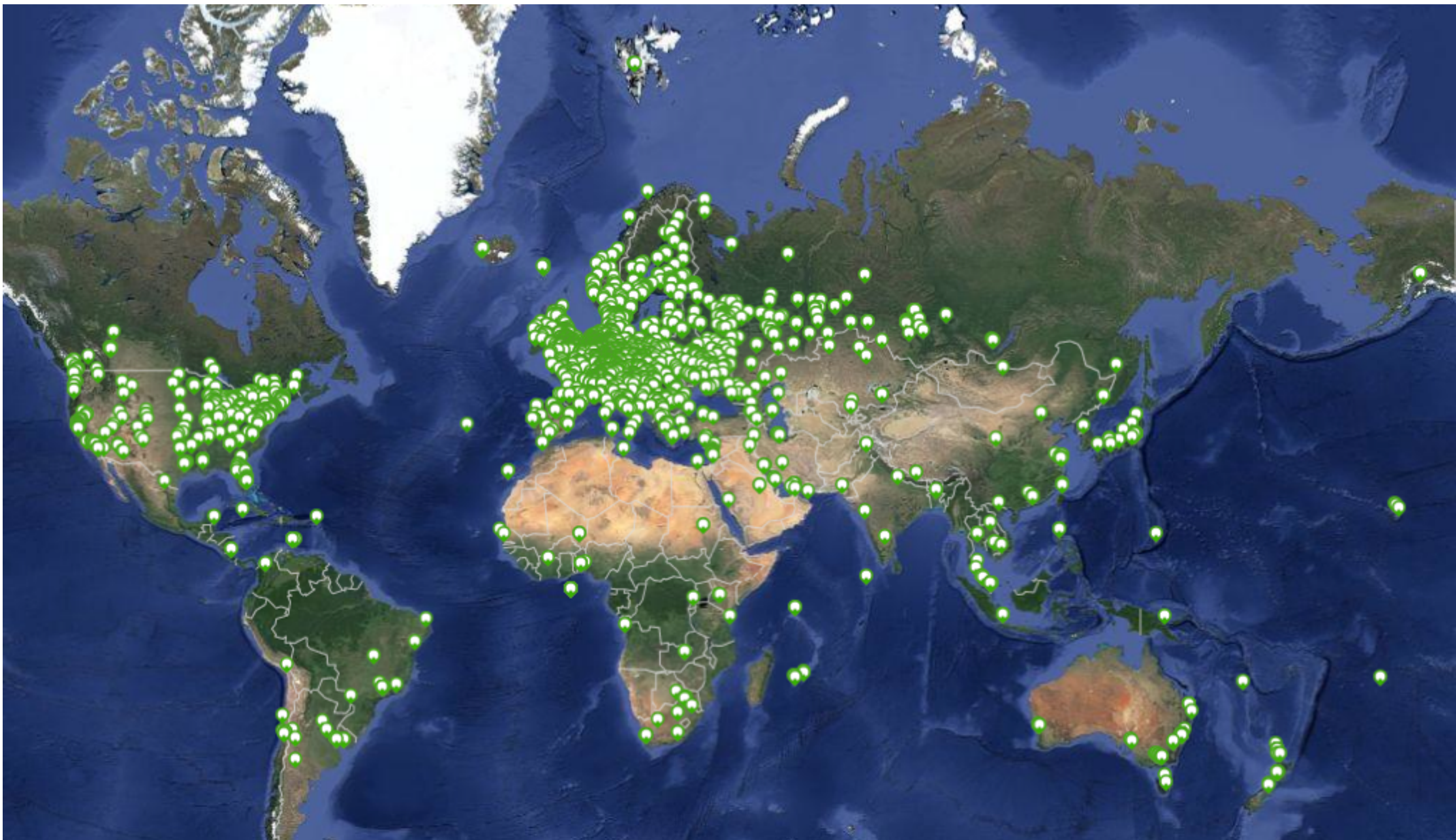


Introduction to RIPE Atlas



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- **RIPE Atlas = global active measurements platform**
- **Goal: View Internet reachability**
- **Probes hosted by volunteers**
- **Measurements performed towards root name servers**
 - **Visualised as Internet traffic maps**
- **Users can also run customised measurements**
 - **ping, traceroute, DNS & SSL**
- **Data publicly available**



- 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
- RIPE Atlas anchor: Soekris net6501-70



- 7,100+ probes connected
- 3,000+ active users this year
- 1,000+ built-in measurements daily
- 5,000+ user-defined measurements daily
 - Available to hosts and members
 - ping, traceroute, DNS, SSL
- Goal by end 2014:
 - 10000 connected probes

Country	Probes
United States	848
Germany	778
France	686
United Kingdom	534
Russia	414
Nederland	409
Czech Republic	195
Ukraine	185
Belgium	174
Switzerland	170

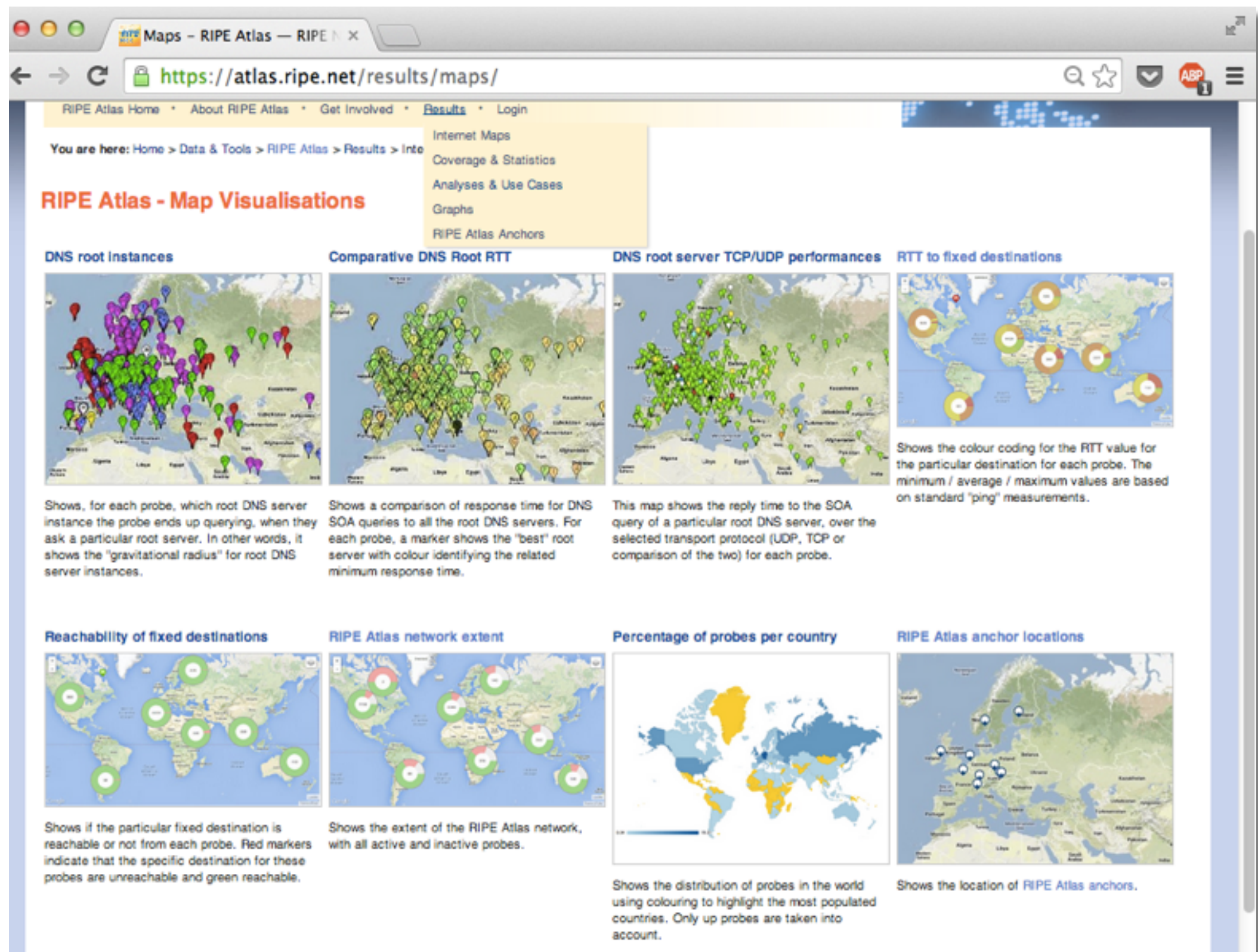
1. Create a RIPE NCC Access account
 2. Go to <https://atlas.ripe.net/apply>
 3. You will receive a probe by post
 4. Register your probe
 4. Plug in your probe
- If you receive a probe from an ambassador (trainer, sponsor, someone at a conference), just register it and plug it in!



What you can get from RIPE Atlas as a visitor

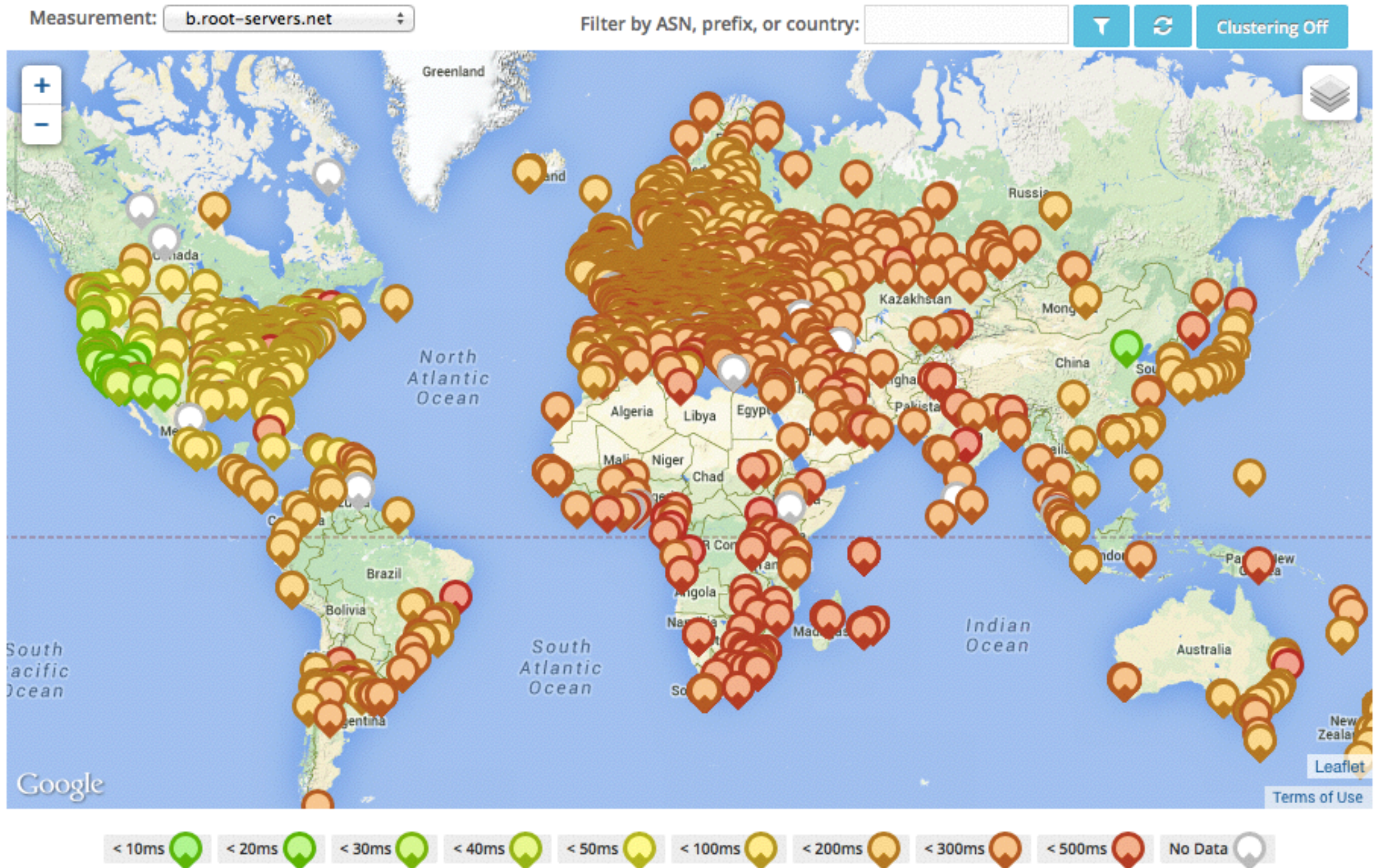


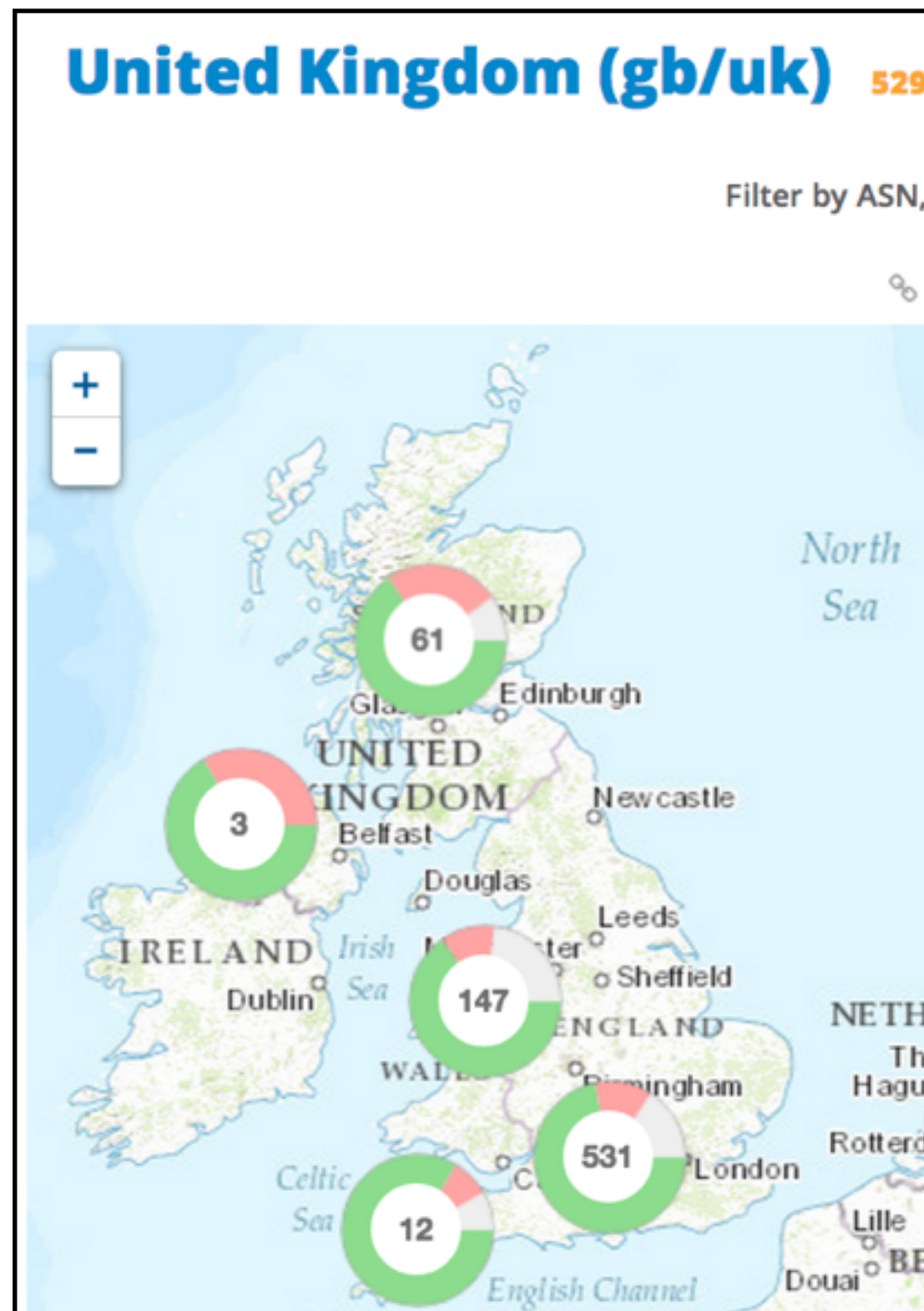
RIPE
NCC



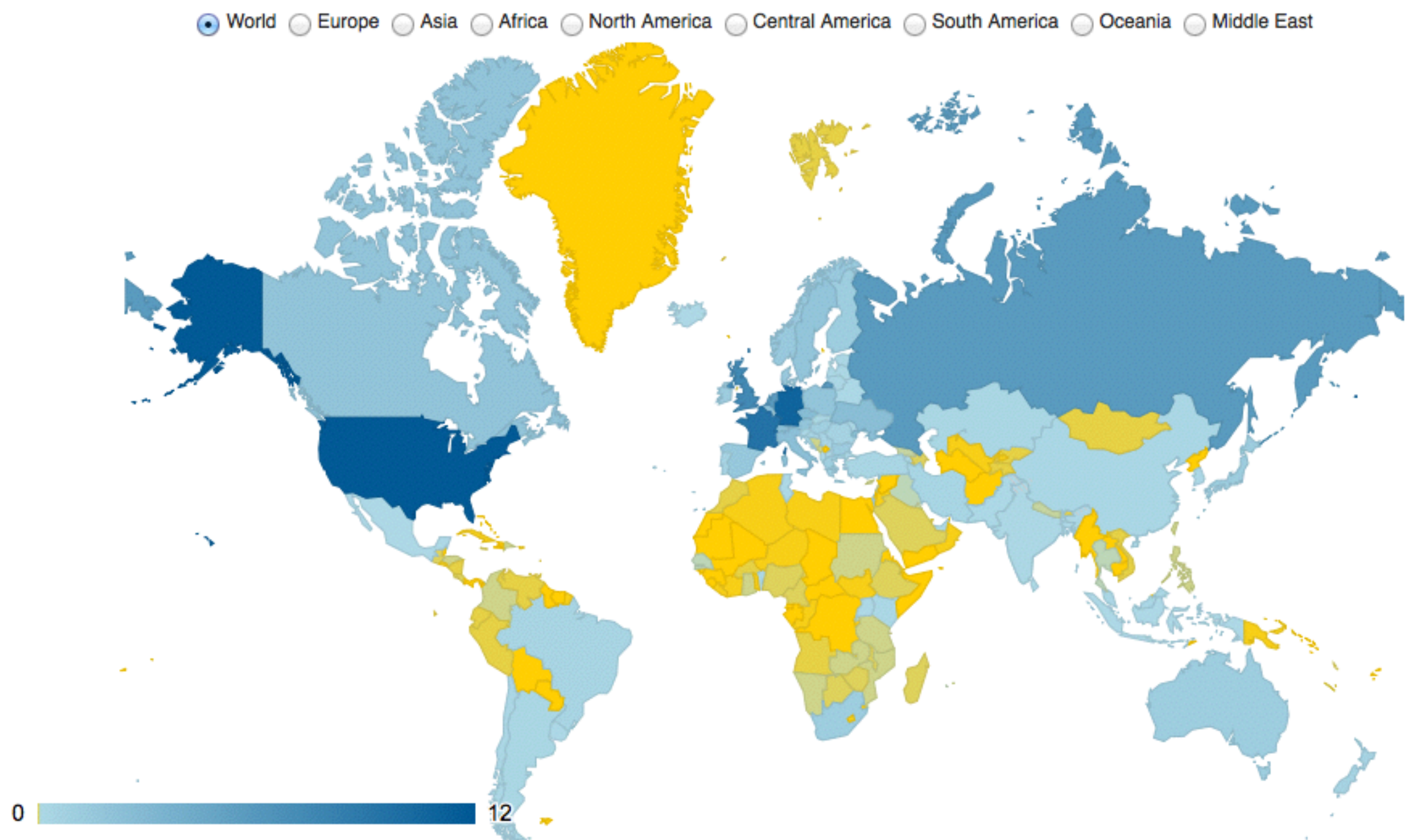
Where is B-root?

65






Where we Want to Place RIPE Atlas Probes



0 comments

RIPE Atlas: Measurements With Tagged Probes Coming Soon
Suzanne Taylor Muzzin  — Sep 12, 2014 12:05 PM

User Tags: Cable, Home, NAT


System Tags: IPv6, Resolves A Correcly, Resolves AAAA Correcly, IPv6 Works


We've been busy working on a number of developments, and we're really excited about one in particular that will be ready soon: creating customised measurements using tagged probes. Learn more about it - along with some other recent additions - and let us know what you think.

Tags: atlas, measurements, tools

[Read more](#)

0 comments

Time Warner Cable Outage
Emile Aben  — Aug 28, 2014 04:50 PM





The Time Warner Cable network suffered an outage on 27 August 2014 between approximately 9:40 and 10:55 UTC. We looked at some interesting details of this outage using RIS and RIPE Atlas.

Tags: atlas, routing

[Read more](#)

0 comments

RIPE Atlas Midsummer Update 2014
Fatimah Mafi  — Jul 24, 2014 05:30 PM





Since RIPE 68 in Warsaw, the RIPE NCC has developed and released new features for RIPE Atlas. We would like to inform the community of what we've been working on and how you can benefit from the RIPE Atlas service.

Tags: atlas, statistics

[Read more](#)

0 comments

How RIPE Atlas Helped Wikipedia Users
Emile Aben  — Jul 09, 2014 12:25 PM



Engineers from the Wikimedia Foundation and the RIPE NCC recently collaborated on a project to measure the latency of Wikimedia sites for users worldwide. Together, we identified ways to decrease latency and improve performance for users around the world.

1 post • 1 page

جستجو... ارسال پاسخ


Information and Communications Technologies
Khoramyar

پروژه بین المللی سنجش اینترنت - رایب اطللس
توسط Khoramyar • سه شنبه مارس 18, 2014 1:42 pm

سازمان رایب - <http://www.ripe.net> - به عنوان یکی از پنج سازمان متولی منابع اینترنت جهانی پروژه بسیار جالب و جذابی را به نام پروژه اطللس شروع کرده است.

وب سایت رسمی پروژه اطللس: <https://atlas.ripe.net>

کاوشگران کوچک شبکه:

سازمان رایب، با تغییر دادن نرم افزار مودم های کوچکی از شرکت TPLink آنها را به Probe ها یا کاوشگر های کوچکی تبدیل کرده و آنها را به رایگان در اختیار متقاضیان میگذارند. متقاضیان از کشور های مختلفی آنها را دریافت میکنند و به اینترنت های منازل و محل کارشان متصل میکنند و این کاوشگرها از نزدیک ترین مودم به پروتوکول DHCP آی پی دریافت کرده و از خط اینترنت با مراکز سنجش رایب تماس میگیرند. مراکز سنجش رایب، به صورت ریموت به این کاوشگر ها دستور میدهند که چه سنجش هایی را انجام دهند.

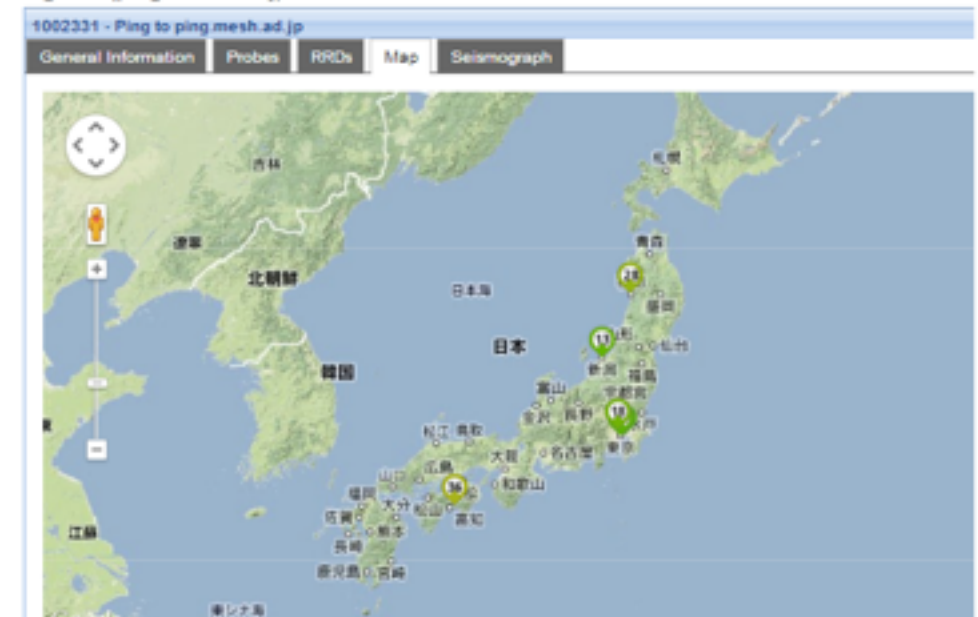
این سنجش ها شامل دستور های ساده شبکه مثل Ping - Traceroute و چند سنجش دیگر مثل DNS و امتال آنها است.

عکس یک کاوشگر رایب اطللس:

標準以外の計測先の追加

任意の宛先 (UDM) を登録して計測を行うことも可能です。My Atlas>Measurements>New リックして計測先を作成します。任意の宛先への計測には「クレジット」が必要になります。ブの稼働時間に応じて (24時間連続稼働すると21,600クレジットが貯まる) 溜まっていき、し TraceRouteを行う度に消費 (pingは1回につき3クレジットを消費) されます。

biglobe (ping.mesh.ad.jp) へのUDM



Looking up Public RIPE Atlas Probes



RIPE
NCC

- **Create an RIPE NCC Access account**
 - The same account used to access the LIR Portal, RIPE Atlas, RIPEstat, RIPE Labs...
- **Advanced**
- **‘LIR contact’: additional benefits!**
 - Membership benefits for RIPE Atlas
 - Share probe management with LIR colleagues
 - Historical RIPE Database view in RIPEstat
- **Add yourself as ‘contact’ in LIR Portal**

Searching for RIPE Atlas Probes

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RIPE Atlas Home • Results • My Atlas: BECHA (Xs4all) • Logout

You are here: Home > Data & Tools > Probes

Filter by id/asn/location/country/description Connected

My Favourite Probes My Sponsored Probes **Public Probes**

Filter based on ASN, Country, Location...

My Atlas / Probes

Possible to mark probes as favourites

Probes

- Measurements
- Credits
- API Keys
- Anchors
- Sponsorships
- Settings

Id	ASN v4	ASN v6	Country	Description	Connection Status
20857	1775				4 days, 4 hours
20856	18			AirJaldi	3 days, 20 hours
20845	4766				5 days, 3 hours
20825	4739	4739		MG-Home	1 week
208				Afilias YYZ1	1 week, 5 days
20825	4739	4739			2 weeks, 5 days
20488	5769	5769		Letiprobe	1 day, 20 hours
20444	5607			Cam	1 day, 11 hours

The screenshot displays the RIPE Atlas Probe Page for probe #4170. The browser address bar shows <https://atlas.ripe.net/probes/4170/>. The page has a navigation bar with links: RIPE Atlas Home, About RIPE Atlas, Get Involved, Results, My Atlas: BECHA (Xs4all), and Logout. Below the navigation bar, a breadcrumb trail reads: You are here: Home > Data & Tools > RIPE Atlas > Probes > Probe #4170.

Randomdata hackerspace

General Information | Network Information | Results from Built-in Measurements | User-defined Measurements

General Information

Id	4170
MAC Address	00:80:A3:91:41:79
Architecture	probev1
Firmware Version	4650
Router Type	
Bandwidth Limit	Not set
DNS Entry	Off
Shared Publicly	Yes
Tags	NAT

Connection & Traffic

Bits/s | Packets/s

Connected Time

1 week, 3 days

Management Sharing

Only the probe host is permitted to administer this probe.

1 week, 3 days

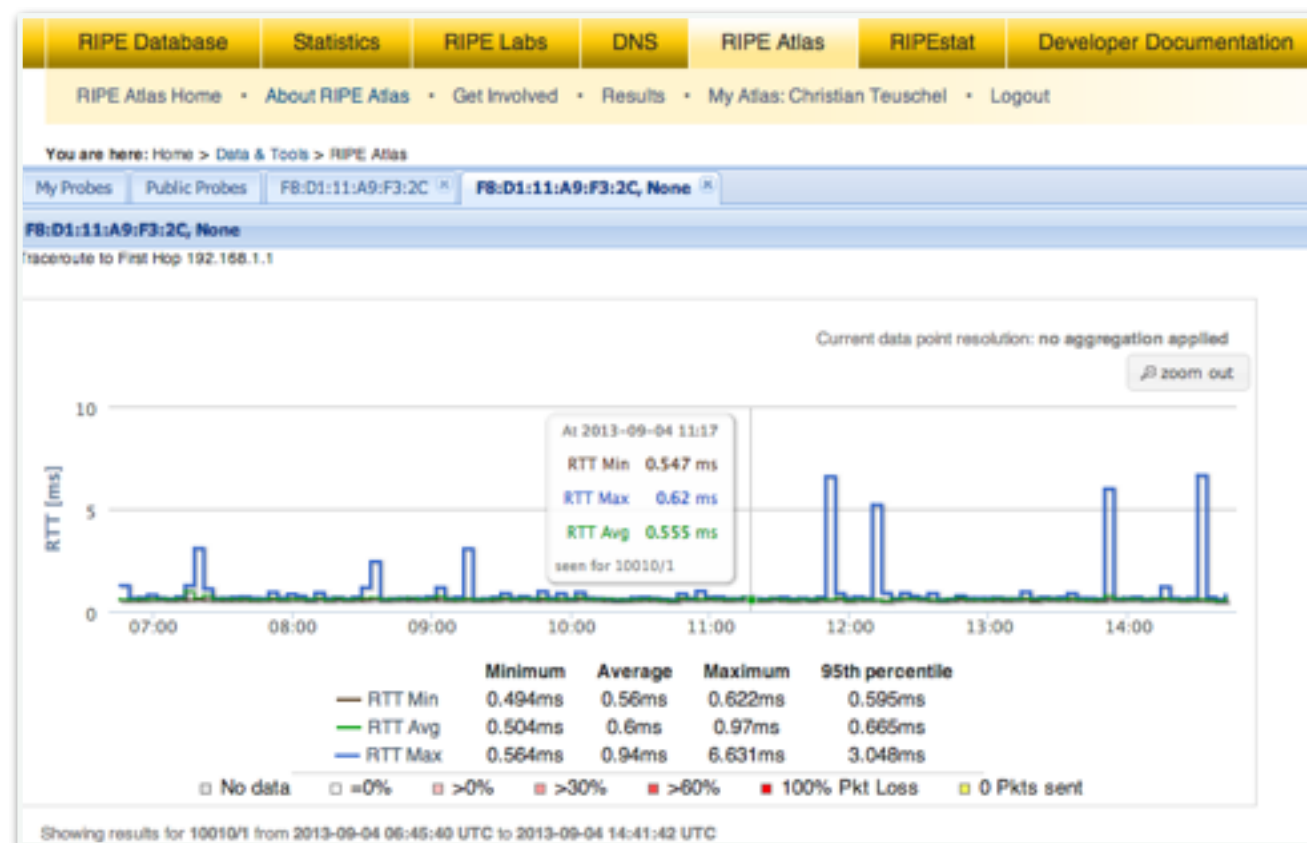
Firmware 4650

Architecture probev1

MAC Address 00:80:A3:91:41:79

#4170

- Replace multiple RRD graphs: zoom in/out in time, in the same graph
- Easier visualisation of an event's details
- Selection of RTT class (max, min, average)

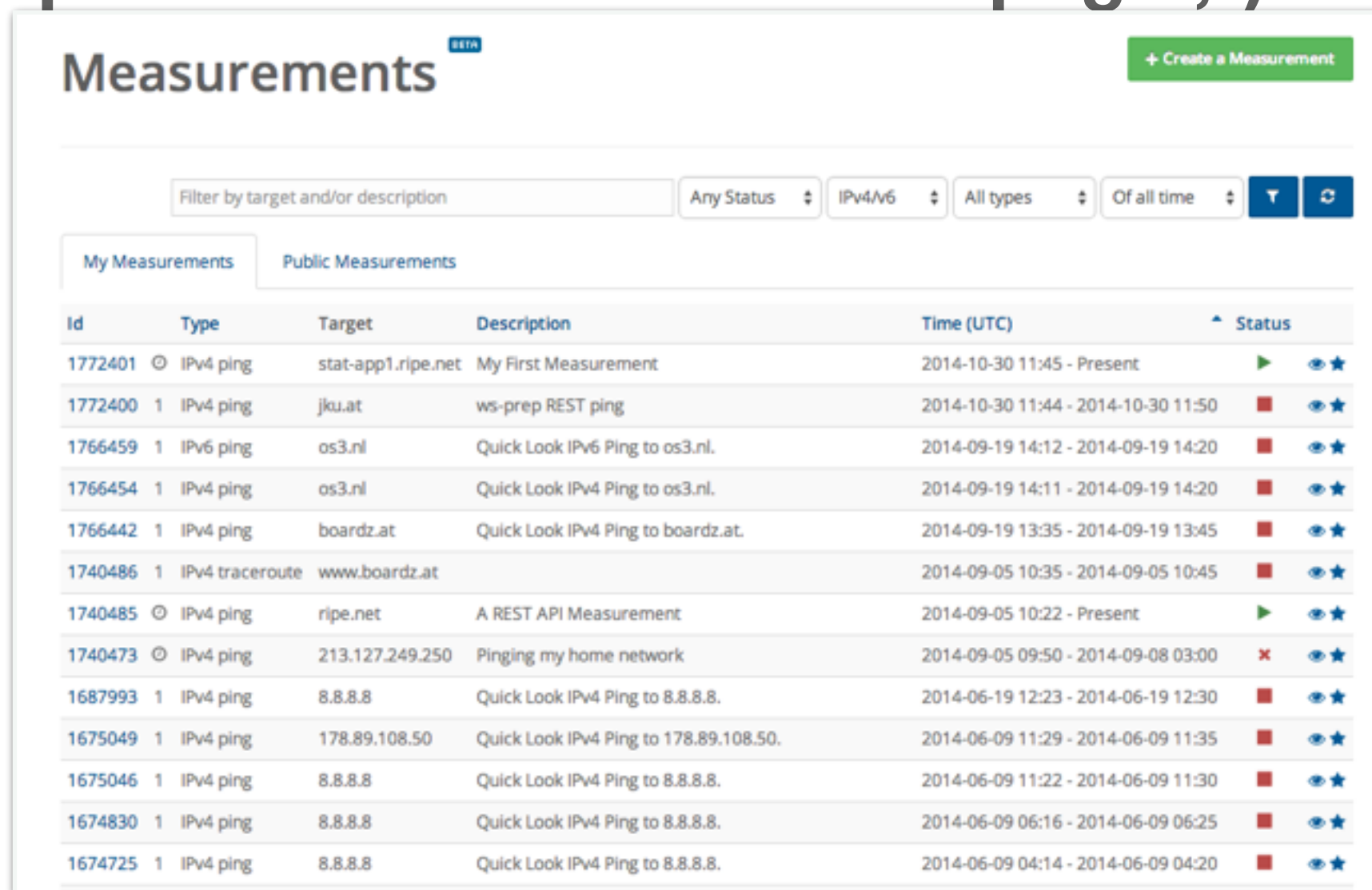


Finding Results of Public Measurements



RIPE
NCC

- Log in to atlas.ripe.net
- Go to “My Atlas” > “Measurements”
- Tip: fast-forward to the last page ;-)



The screenshot shows the 'Measurements' page on atlas.ripe.net. At the top, there's a 'BETA' badge and a '+ Create a Measurement' button. Below this is a search bar 'Filter by target and/or description' and several filter buttons: 'Any Status', 'IPv4/v6', 'All types', and 'Of all time'. There are also 'T' and 'C' icons. Below the filters are two tabs: 'My Measurements' (selected) and 'Public Measurements'. The main content is a table of measurements with columns: Id, Type, Target, Description, Time (UTC), and Status. The table lists 14 measurements, including various ping and traceroute tests to targets like stat-app1.ripe.net, jku.at, os3.nl, boardz.at, and 8.8.8.8. Each row has a status icon (green play, red square, or red X) and eye/star icons.

Id	Type	Target	Description	Time (UTC)	Status
1772401	IPv4 ping	stat-app1.ripe.net	My First Measurement	2014-10-30 11:45 - Present	Success
1772400	IPv4 ping	jku.at	ws-prep REST ping	2014-10-30 11:44 - 2014-10-30 11:50	Failure
1766459	IPv6 ping	os3.nl	Quick Look IPv6 Ping to os3.nl.	2014-09-19 14:12 - 2014-09-19 14:20	Failure
1766454	IPv4 ping	os3.nl	Quick Look IPv4 Ping to os3.nl.	2014-09-19 14:11 - 2014-09-19 14:20	Failure
1766442	IPv4 ping	boardz.at	Quick Look IPv4 Ping to boardz.at.	2014-09-19 13:35 - 2014-09-19 13:45	Failure
1740486	IPv4 traceroute	www.boardz.at		2014-09-05 10:35 - 2014-09-05 10:45	Failure
1740485	IPv4 ping	ripe.net	A REST API Measurement	2014-09-05 10:22 - Present	Success
1740473	IPv4 ping	213.127.249.250	Pinging my home network	2014-09-05 09:50 - 2014-09-08 03:00	Failure
1687993	IPv4 ping	8.8.8.8	Quick Look IPv4 Ping to 8.8.8.8.	2014-06-19 12:23 - 2014-06-19 12:30	Failure
1675049	IPv4 ping	178.89.108.50	Quick Look IPv4 Ping to 178.89.108.50.	2014-06-09 11:29 - 2014-06-09 11:35	Failure
1675046	IPv4 ping	8.8.8.8	Quick Look IPv4 Ping to 8.8.8.8.	2014-06-09 11:22 - 2014-06-09 11:30	Failure
1674830	IPv4 ping	8.8.8.8	Quick Look IPv4 Ping to 8.8.8.8.	2014-06-09 06:16 - 2014-06-09 06:25	Failure
1674725	IPv4 ping	8.8.8.8	Quick Look IPv4 Ping to 8.8.8.8.	2014-06-09 04:14 - 2014-06-09 04:20	Failure

Measurements BETA

[+ Create a Measurement](#)

Filter by target and/or description

Any Status

IPv4/v6

✓ All types

Ping

Traceroute

DNS

HTTP

SSL Certificate

Of all time

⌵

↺

My Measurements

Public Measurements

Id	Type	Target	Description	Time	Status
1772401	🕒 IPv4 ping	stat-app1.ripe.net	My First Measurement	2014-10-30 11:45 - Present	🟢 👁 ⭐
1772400	1 IPv4 ping	jku.at	ws-prep REST ping	2014-10-30 11:44 - 2014-10-30 11:50	🔴 👁 ⭐
1766459	1 IPv6 ping	os3.nl	Quick Look IPv6 Ping to os3.nl.	2014-09-19 14:12 - 2014-09-19 14:20	🔴 👁 ⭐

- Click on measurement, then “Download”

- Or go to URL
- Or use the API

- Results in JSON

- Libraries for parsing available on GitHub

You are here: Home > Data & Tools > RIPE Atlas > Measurements > Measurement #1733329

⚡ www.seil.jp ESTD

General Information Probes Map OpenIPMap Prototype **Download Results**

Download the raw measurement result data here.

You can use this form to download the data through your browser, or use the preview on the right to help you query the REST API directly.

Start Date: 2014-08-25

Stop Date: 2014-08-25

Format: JSON

Download

URL Preview

`https://atlas.ripe.net/api/v1/measurement/1733329/result/?start=1408924800&stop=1409011199&format=json`

- <https://github.com/RIPE-NCC/ripe.atlas.sagan>
- <https://github.com/RIPE-Atlas-Community/>

Go to “RIPEstat >
“RIPE Atlas Activity”

RIPEstat — Internet Measurements and Analysis







https://stat.ripe.net/widget/atlas-targets#w.resource=8.8.8.8

You are here: Home > Data & Tools > RIPEstat > atlas-targets

RIPE Atlas Measurement Targets (8.8.8.8)

8.8.8.8

Show 10 targets/page Search:

Measurement ID	Stopped	Type	Target IP	Target Hostname
1040720 	ongoing	ping	8.8.8.8	google-public-dns-a.google.com
1006491 	ongoing	traceroute	8.8.8.8	not specified
1006192 	ongoing	ping	8.8.8.8	not specified
1004827 	ongoing	traceroute	8.8.8.8	not specified
1002630 	ongoing	ping	8.8.8.8	not specified
1478085 	2014-02-24 13:41 UTC	dns	8.8.8.5	not specified

- **There are many measurements already running!**
- **Search for existing public measurements first**
- **Schedule your own measurement if you don't find what you're looking for**













Exercise: Find Measurements Results

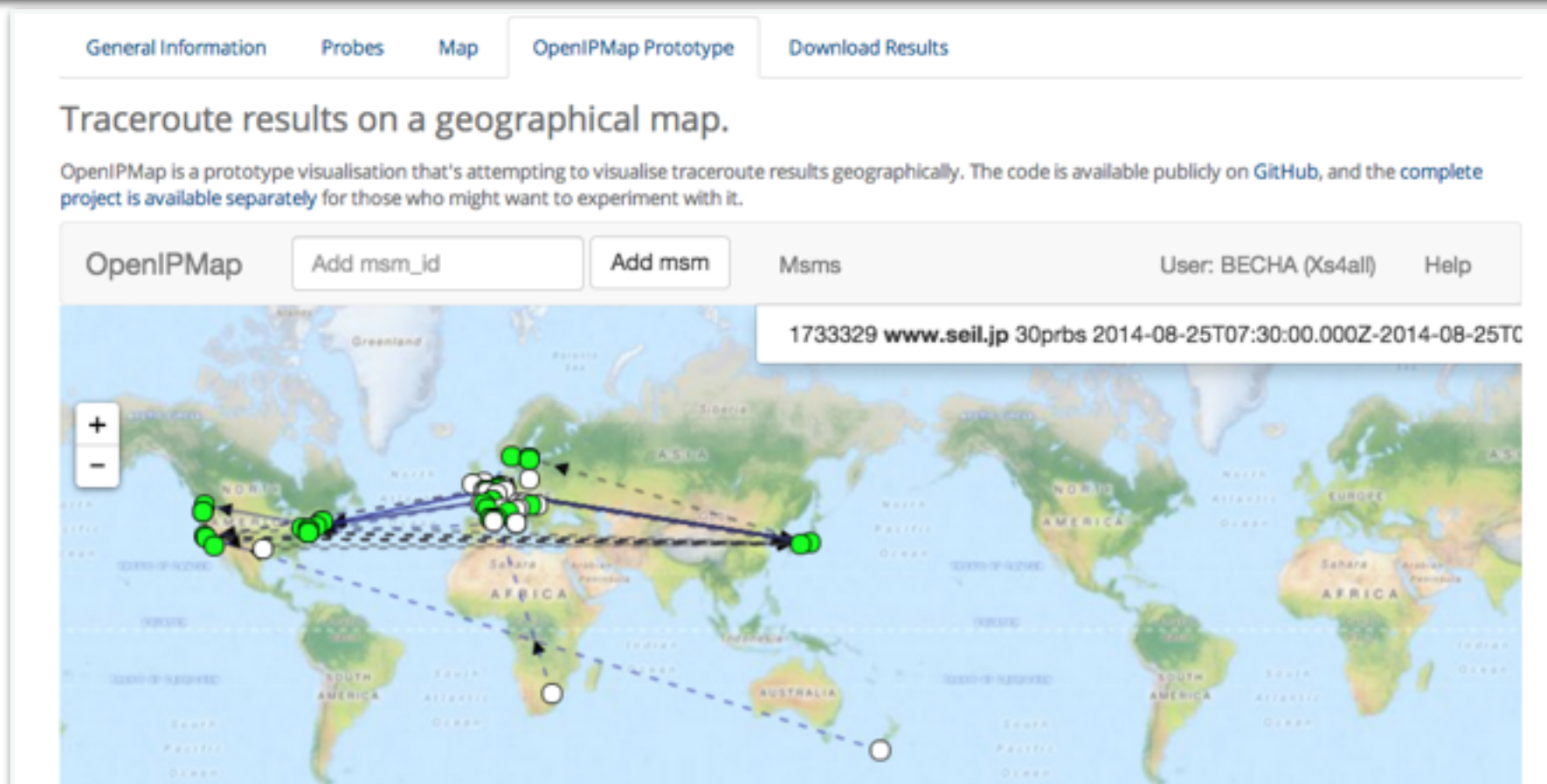


RIPE
NCC

Task: Search for Measurement ID #1733329

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www.seil.jp							
General Information		Probes		Map		OpenIPMap Prototype	
Probe	ASN (v4)	ASN (v6)			Time	RTT	Hops
2043	3313				2014-08-25 07:44	308.018	<div><div></div></div> 21
3246	41135				2014-08-25 07:41	259.912	<div><div></div></div> 12
3389	3302				2014-08-25 07:43	285.608	<div><div></div></div> 17
4092	37497				2014-08-25 07:40	452.889	<div><div></div></div> 19
4228	3269				2014-08-25 07:41	329.862	<div><div></div></div> 20
10024	42353				2014-08-25 07:44	×	<div><div></div></div> 1



Creating a Measurement

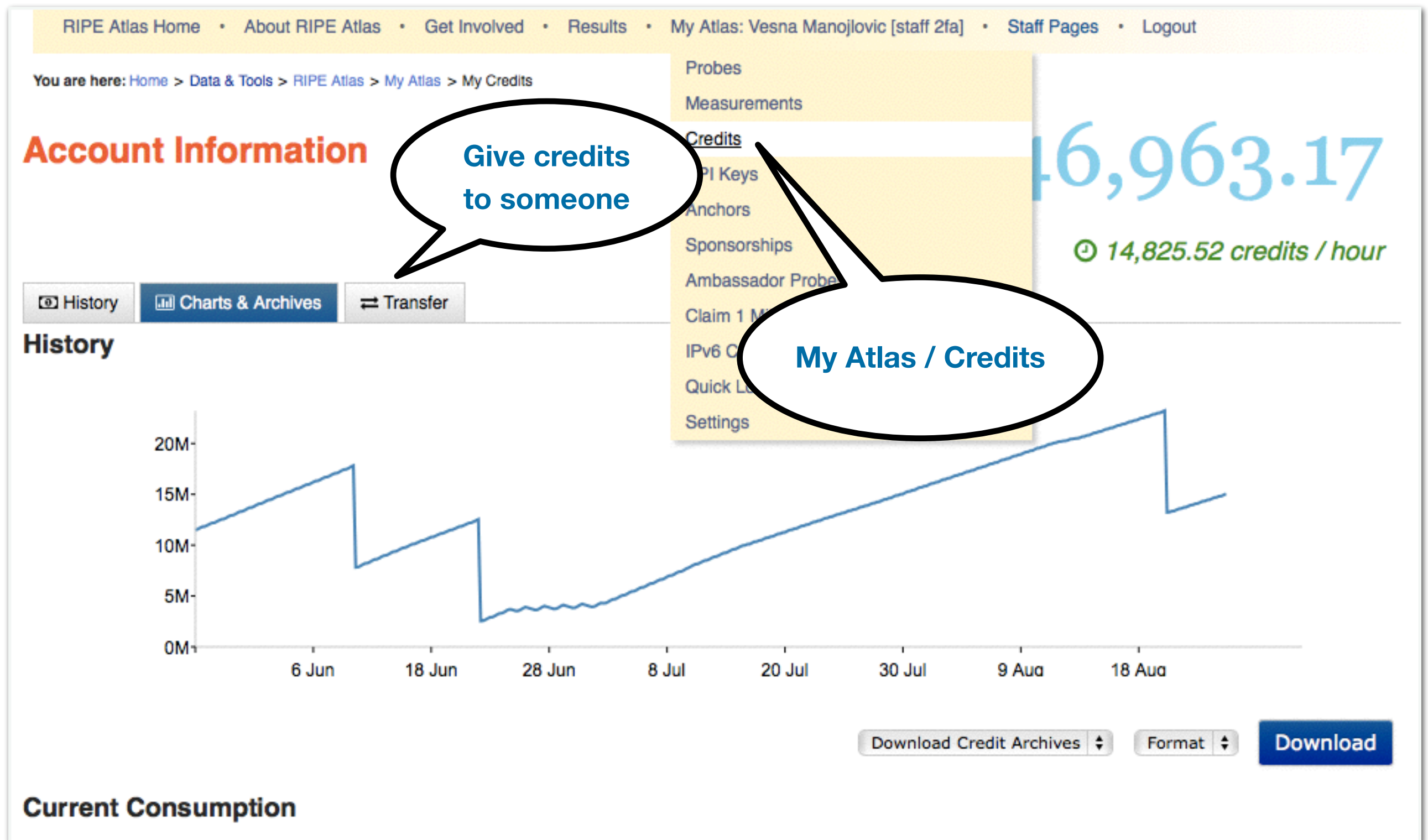


RIPE
NCC

- Log in to atlas.ripe.net
- “My Atlas” > “Measurements”
- “New Measurement” or “One-off”
 - Most are periodic and last a long time
 - Choose type, target, frequency, # of probes, region...
 - You will spend credits
- <https://atlas.ripe.net/doc/udm>
- Or use the API:
 - <https://atlas.ripe.net/docs/measurement-creation-api/>

- **Measurements cost credits**
 - ping = 10 credits, traceroute = 20, etc.
- **Why? Fairness and to avoid overload**
- **Hosting a RIPE Atlas probe earns credits**
- **Earn extra credits by:**
 - Being a member
 - Hosting an anchor
 - Sponsoring probes

<https://atlas.ripe.net/doc/credits>





Exercise: Create a Measurement



RIPE
NCC

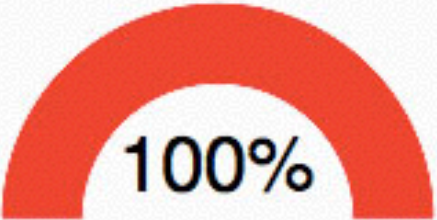
- **Create a measurement**
 - ping
 - involving ten probes
 - to a target of your choice
 - Source: your country
 - Duration: two days
- **Use the RIPE Atlas GUI**

Create a New Measurement

BETA

Summary


Daily costs



100%

By scheduling this measurement, your total daily consumption will be 100.0% of your daily income

You will run out of credits in about 81 days



■ Balance
■ Total Expenses

Step 1 Definitions

▼ Ping measurement

Target

An IP address or hostname

Address Family

Packets

Size

Description

A free-form description of this measurement

Interval

How often this should be done (seconds between samples). Note that this value is ignored for one-off measurements.

Resolve on Probe

☐

Force the probe to do DNS resolution

+ Ping

+ Traceroute

+ DNS

+ SSL

- https://labs.ripe.net/Members/suzanne_taylor_muzzin/ripe-atlas-new-measurements-ui-and-tagging

- <https://stat.ripe.net>
- Articles and updates on RIPE Labs:
<https://labs.ripe.net/ripestat>
- Questions and bugs: stat@ripe.net
- Twitter: **#RIPEstat**
- Tutorial:
 - <http://www.ripe.net/lir-services/training/courses/tailor-made-workshops/#tools>

- <https://atlas.ripe.net>
- Users' mailing list: ripe-atlas@ripe.net
- Articles and updates on RIPE Labs:
<https://labs.ripe.net/atlas>
- Questions and bugs: atlas@ripe.net
- Twitter: [@RIPE_Atlas](https://twitter.com/RIPE_Atlas) and [#RIPEAtlas](https://twitter.com/RIPEAtlas)
- Workshop on Thursday at RIPE 69
- <https://ripe69.ripe.net/programme/meeting-plan/workshops/>





More RIPE Atlas Features



RIPE
NCC

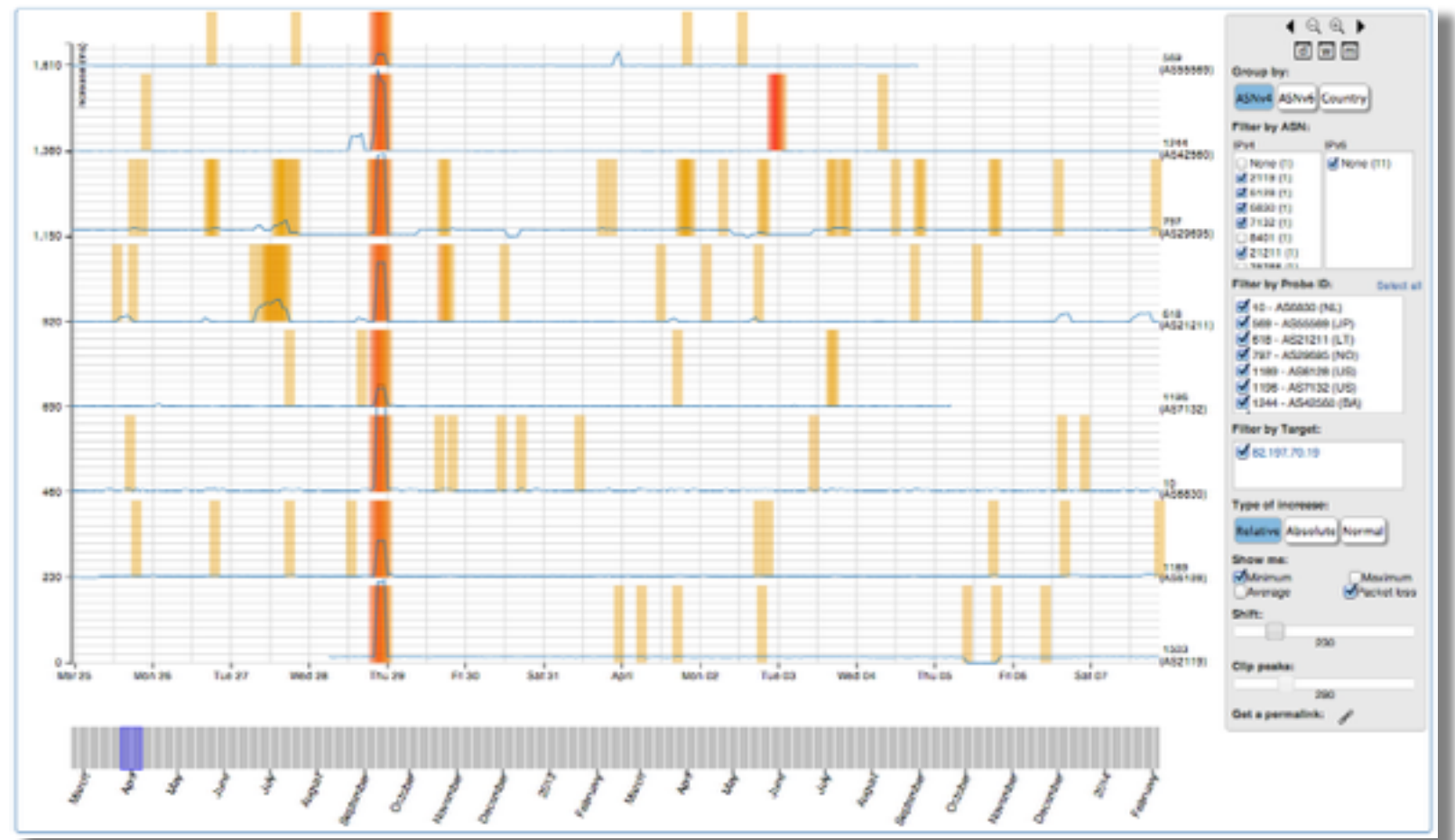
- <https://atlas.ripe.net/docs/measurement-latest-api/>
 - Widget monitoring value in real time (100 probes pinging websites worldwide)
 - Alert based on average measurements per hour
 - Big network event, e.g. Internet outage in a region
 - DNS domain monitoring; configurable measurements using ten RIPE Atlas anchors
- https://labs.ripe.net/Members/suzanne_taylor_muzzin/ripe-atlas-latest-results-api-and-parsing-library

- Use API keys to:
 - Create measurements without logging in
 - Securely share your measurement data with others
- To create, manage and delete API keys:
 - <https://atlas.ripe.net/keys/>
 - <https://atlas.ripe.net/docs/keys2/>
- Examples:
 - <https://atlas.ripe.net/docs/rest/>

- **Probes:**
 - Hardware trust material (regular server address, keys)
 - No open ports; initiate connection; NAT is okay
 - Don't listen to local traffic
 - No passive measurements
- **Measurements triggered by “command servers”**
 - Inverse ssh tunnels
- **Source code published**
- **Reported vulnerabilities:**
 - <https://atlas.ripe.net/docs/security/>

- Multiple ping measurements in one view
- Stacked chart and interactive control panel
- Go to Results > Anchors > choose one from the list > ping

[https://labs.ripe.net/
Members/massimo_candela/
seismograph-user-guide](https://labs.ripe.net/Members/massimo_candela/seismograph-user-guide)



- **RIPE Atlas:**

- Members are guaranteed one probe each
- Do NOT have to host a probe in order to perform customised measurements
- 1,000,000 extra credits monthly via LIR Portal
- “Quick Look” measurements via LIR Portal
- IPv6 reachability testing (free - no credits needed)
- Sharing probe management with LIR colleagues

- **RIPEstat:**

- Historical view of RIPE Database objects