



**RIPE  
NCC**

**RIPE NCC  
Measurements Tools  
Workshop**

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**Tehran | November 2014**

## RIPEstat

- Introduction to RIPE and the RIPE NCC
- Introduction to RIPEstat
- More about widgets
- List of widgets
  - *Exercise: Querying for a Resource*
- Useful routing widgets
  - *Exercise: BGPlay*
- Handling abuse
  - *Exercise: Handling Abuse*
- Personalising RIPEstat
  - *Exercise: MyView*
- Comparing results
  - *Exercise: Comparing Results*
  - *Exercise: RIPEstat Use Cases*

## RIPE Atlas

- Introduction to RIPE Atlas
- What you can get from RIPE Atlas as a visitor
- Exploring public probes
  - *Live Demo*
- Finding public measurements
  - *Exercise F: Analyse results*
- Creating a measurement
  - *Exercise G: Create a measurement*
- Network Monitoring
  - *Exercise H: Setting up 'Status Checks'*
- More RIPE Atlas features
- How to host a probe
- Advanced topics
  - Use cases and success stories
  - RIPE Atlas anchors
  - RIPE Atlas community



# Introduction to the RIPE NCC

## Section 1



**RIPE**  
NCC



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

RIR SERVICE REGIONS



- **Distribute IPv4, IPv6, ASNs**
- **Training courses**
- **RIPE Database**
- **Support RIPE community**
- **RIPE Atlas, RIPEstat, Resource Certification**

- Started in 1989
- Discussion forum open to all parties interested
- Not a legal entity and no formal membership
- Develops policies
- Work done in Working Groups
- Activities are performed on a





# Introduction to RIPEstat

## Section 2



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?
  - Are my DNS and reverse DNS consistent?
  - Location of my customers' prefixes
  - Was my prefix visible yesterday in Tokyo?

- **For viewing other networks:**
  - How many IPv6 prefixes are announced in my country?
  - 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?
  - Which ASN announces an IP?
  - Where can I report abuse from an IP?

RIPEstat shows your own IP/ASN

The screenshot shows the RIPEstat website interface. At the top, there is a navigation bar with links: RIPEstat Home, About RIPEstat, Documentation, Use Cases, and Login. Below this, a breadcrumb trail reads: You are here: Home > Data & Tools > RIPEstat. The main content area features a yellow search bar with the text "Search RIPEstat" and a search button. The search bar contains the text "AS3333", which is highlighted with a blue speech bubble. Below the search bar, there is a text input field with the placeholder text "Your network: AS3333, 2001:67c:2e8::/32 e.g.: IPv4 prefix/range, IPv6, ASN". A red circle highlights the text "AS3333, 2001:67c:2e8::/32" in the input field, and a red arrow points from the text "RIPEstat shows your own IP/ASN" to this circle. Below the search bar, there is a section titled "BGPlay is back!" with a network diagram. At the bottom, there is a navigation menu with three main categories: "About RIPEstat", "Documentation", and "Use Cases". Each category has a list of sub-links and a "LEARN MORE" button with a right-pointing arrow.

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

You are here: Home > Data & Tools > RIPEstat

Search RIPEstat

AS3333

Your network: AS3333, 2001:67c:2e8::/32 e.g.: IPv4 prefix/range, IPv6, ASN

Level: Initial state  
Number of ASes: 87  
Number of collector peers: 62  
Selected RNCs: 0,1,6,7,11,13,15  
Total number of events: 95  
Date and time: 2013-06-15 12:44:57

Origin AS  
Collector peer  
Other  
Dynamic path

LEARN MORE →

LEARN MORE →

LEARN MORE →

- About RIPEstat
  - FAQ
  - Data Sources
  - Widget List
  - Top Queries
  - Workshops
  - Feedback
- Documentation
  - Interfaces & APIs
  - Demos
  - Roadmap
  - Changelog
- Use Cases
  - Notable Network Events
  - Compare Results
  - Looking for Abuse Information
  - Global Internet Statistics

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

You are here: Home > Data & Tools > RIPEstat > AS3333

AS3333

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

**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

**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

**Geoloc (AS3333)**

Map Satellite

100.00%

Germany

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

**Routing Status (AS3333)**

At 2014-07-25 06:00:00 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

**Widgets**

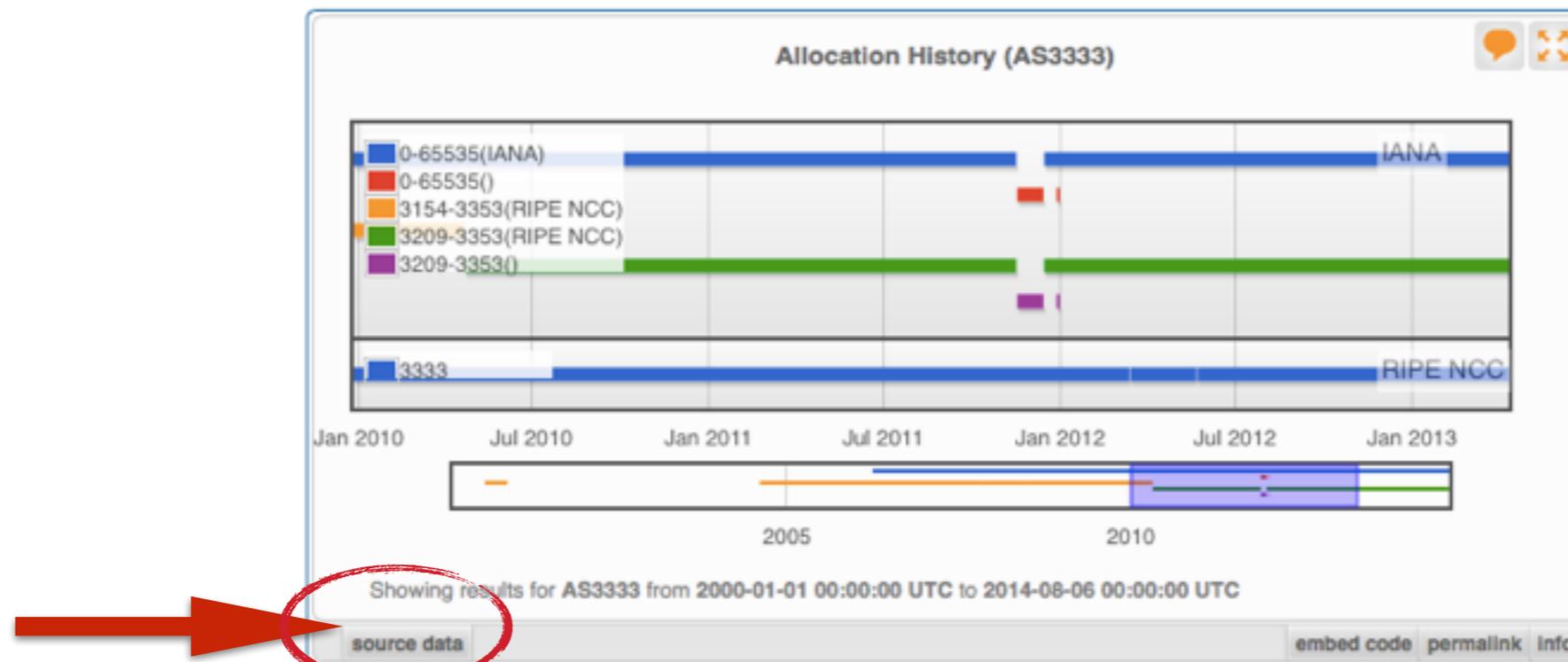


# More About Widgets

## Section 3



# Get the data behind the widget!

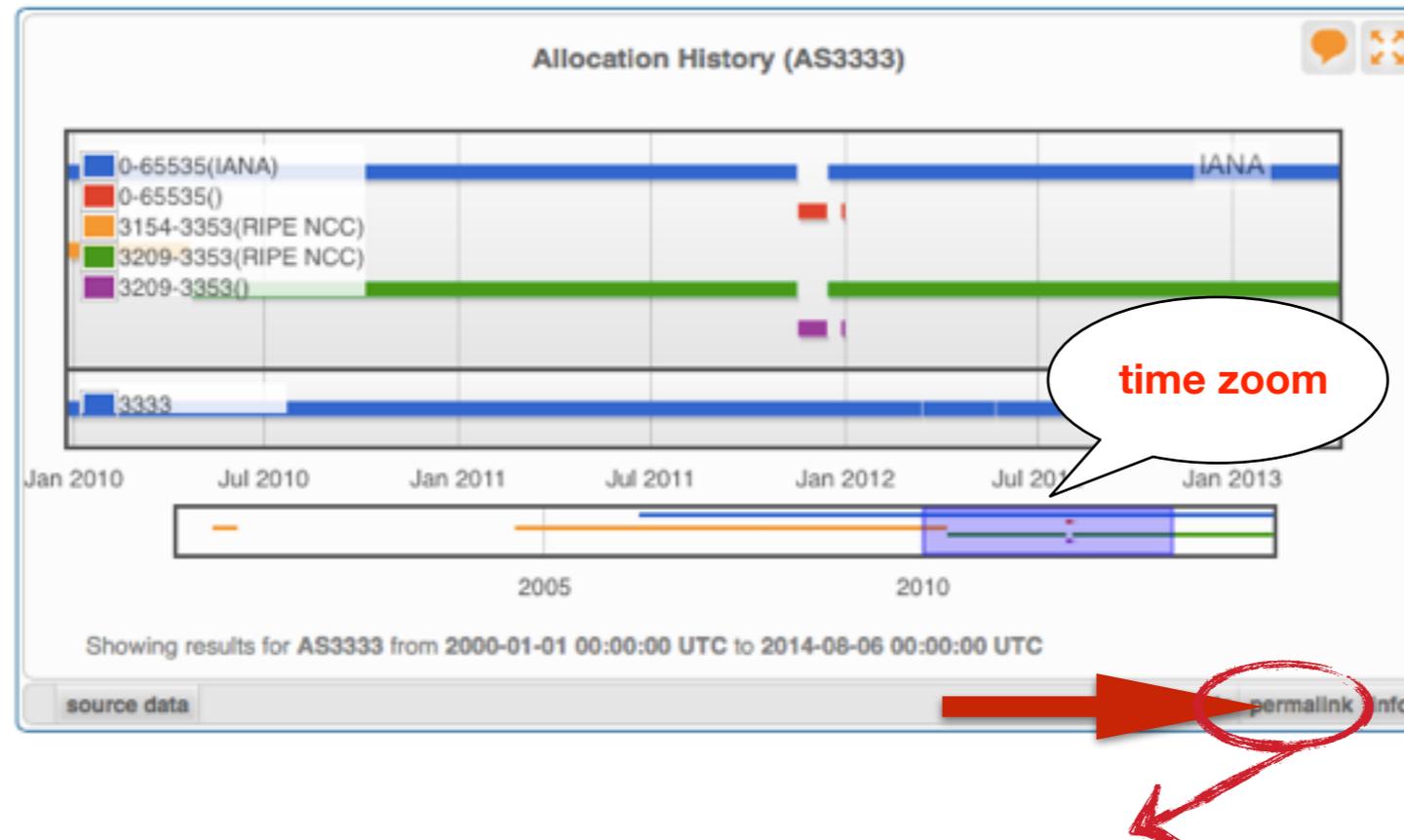


source data embed code permalink info

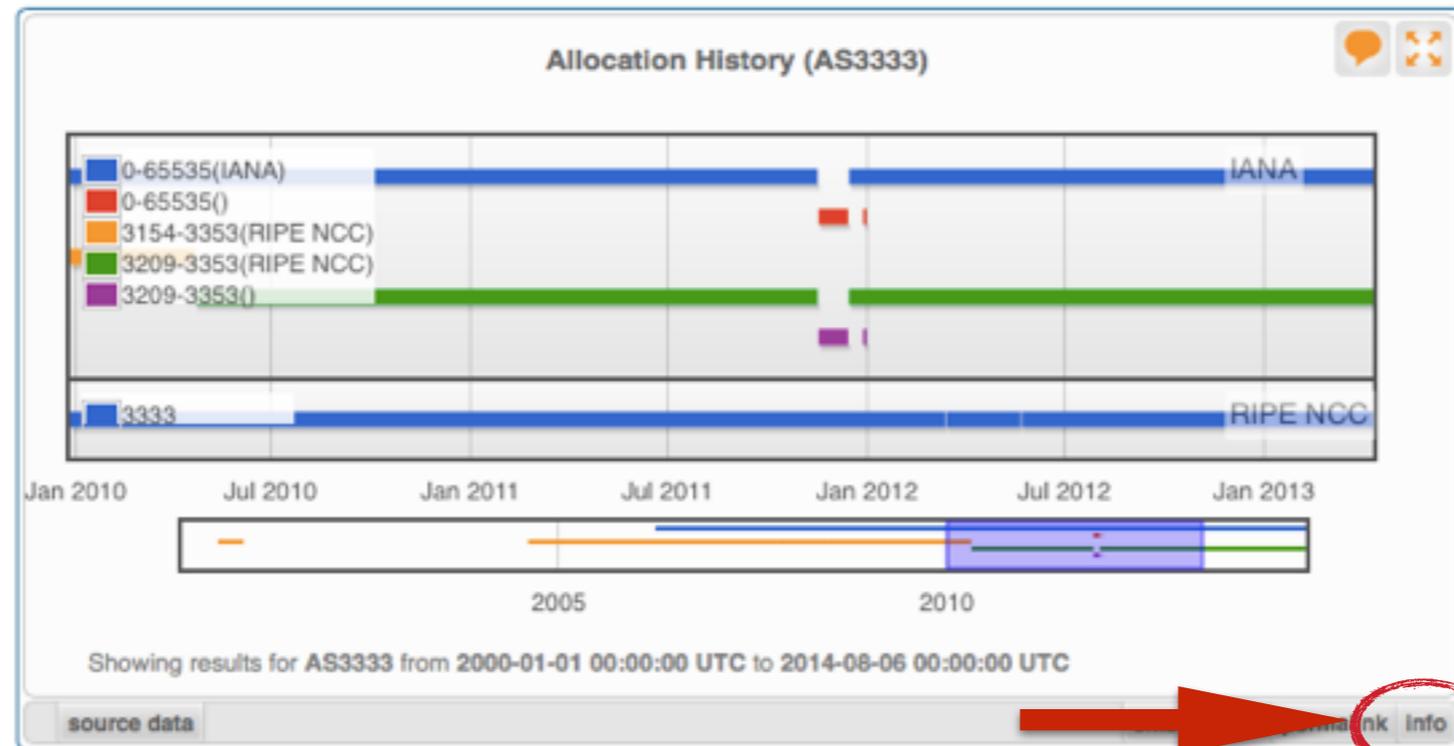
Get the data behind this widget with the Data API

<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



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.

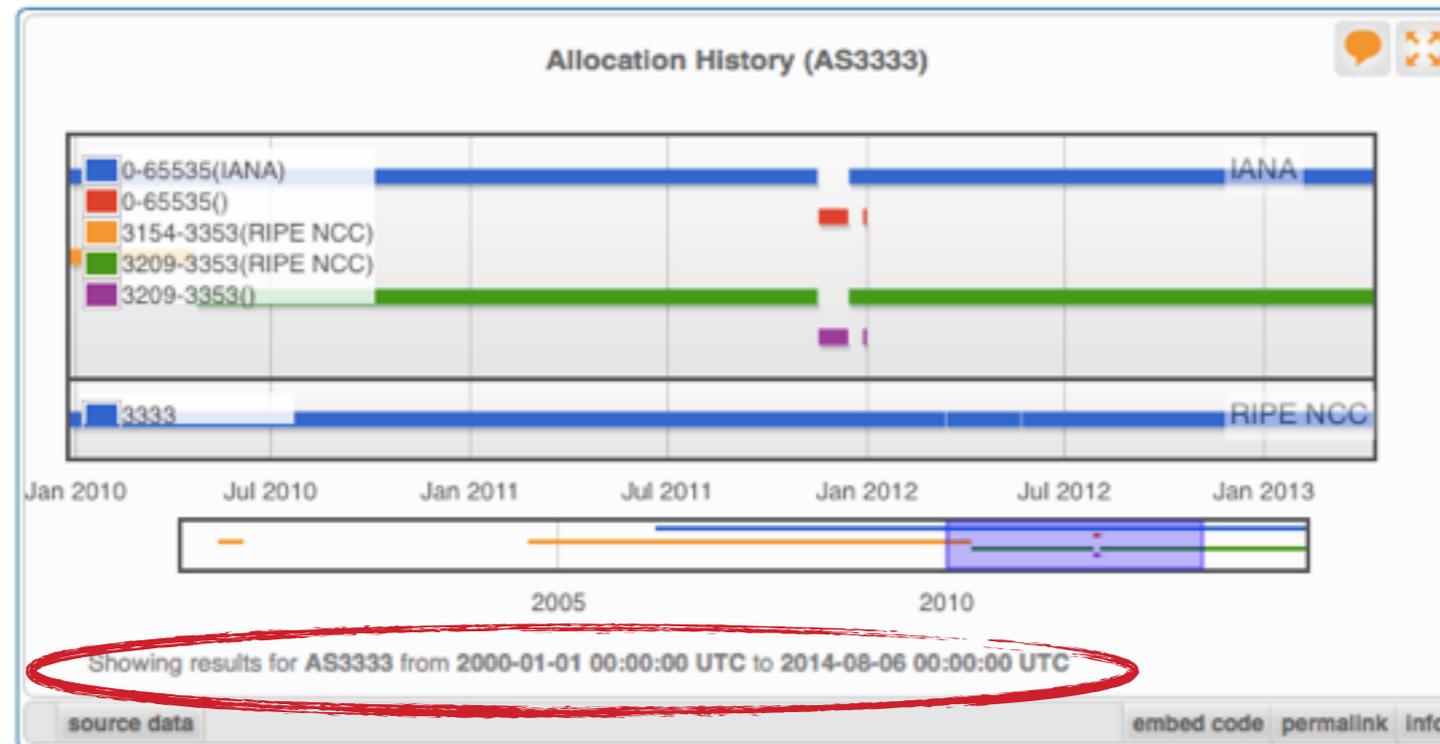


The shaded area is displayed in the graph. This area can be adjusted by moving to the left or right end of the shaded area and then dragging it to the desired location. It is possible to change not only the start and end time, but also the length of the period which is shown.



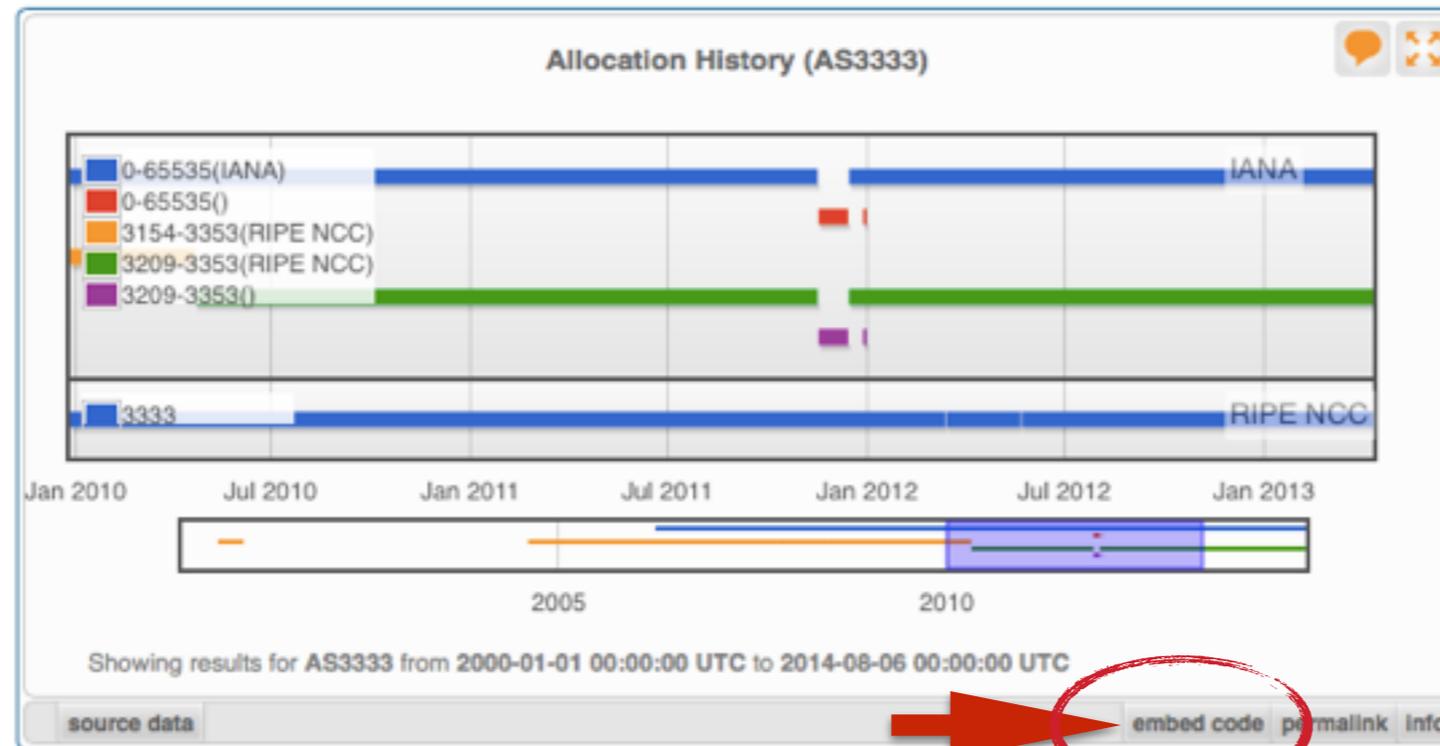
**What is the data source?**  
The RIR statistics files summarise the current state of allocations and assignments of Internet number resources. They are intended to provide a snapshot of the status of Internet number resources, without any transactional or historical details. Find details for each RIR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



```
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.

The screenshot shows the website for AS42093, titled "InterRacks / IceHosting network". The page has a navigation bar with links: Home, Network load, Peers, Peering policy, Maintenance, and Looking glass. Below the navigation bar, there is a "Welcome" section, a "Network status" section indicating no issues, and a "Network Details" section. The "Prefixes" section features a line graph titled "number of Prefixes - Addresses" showing the growth of IPv4 (blue) and IPv6 (green) prefixes from 2010 to 2013. Below this is an "AS Path Length" section with a radar chart showing the average path length to various global locations like New York, London, Tokyo, and Sydney.

This ISP embedded widgets on its page

Prefix Count widget

AS Path Length widget



# List of Widgets

## Section 4



<b>AS queried</b>	<b>Prefix queried</b>
AS Overview	Prefix Overview
Registry Browser	Registry Browser
Geolocation	Geolocation
Routing Status	Routing Status

## <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"/>

AS queried	Prefix queried
Routing Status	Routing Status
BGP Update Activity	BGPlay
Routing History	BGP Update Activity
Announced Prefixes	Routing History
AS Path Length	Routing History
ASN Neighbours	BGP Looking Glass
ASN Neighbours History	Visibility
Prefix Count	Related Prefixes
Visibility	Prefix Routing Consistency
Prefix Size Distribution	
AS Routing Consistency	

AS queried	Prefix queried
Reverse DNS Consistency	Reverse DNS
	Reverse DNS Consistency

AS queried	Prefix queried
Abuse Contact Finder	Abuse Contact Finder
	Blacklist Entries

AS queried	Prefix queried
AS Overview	Prefix Overview
Registry Browser	Registry Browser
Allocation History	Address Space Hierarchy
Whois Matches	Allocation History
AS Routing Consistency	Address Space Usage
	RIR Prefix Size Distribution
	Prefix Routing Consistency
	Reverse DNS
	Whois Matches

<b>AS queried</b>	<b>Prefix queried</b>
Geolocation	Geolocation
Geolocation History	Geolocation History

AS queried	Prefix queried
RIPE Atlas Probes	Observed Bandwidth Capacity
RIPE Atlas Measurement Targets	Observed Network Activity
	Geolocation
	Geolocation History

<b>AS queried</b>	<b>Prefix queried</b>
RIPEstat Search Suggestions	RIPEstat Search Suggestions

**ROUTING  
DATABASE**

**ACTIVITY**

**COUNTRY CODE queried**

Country Routing Statistics

Country Resource List

Observed Bandwidth Capacity

Observed Network Activity

Address Space Distribution

<b>AT A GLANCE</b>	{	<b>HOST NAME queried</b>
		Geolocation
		DNS Chain
<b>DNS</b>	{	Forward DNS
		DNS Chain
<b>GEOGRAPHIC ACTIVITY</b>	{	Forward DNS
		Geolocation
		Geolocation History
		RIPE Atlas Measurement Targets



## Exercise: Querying for a resource

### Exercise A

Refer to the exercise booklet



- 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 over the last two years?
- How would you share interesting network events with a colleague?



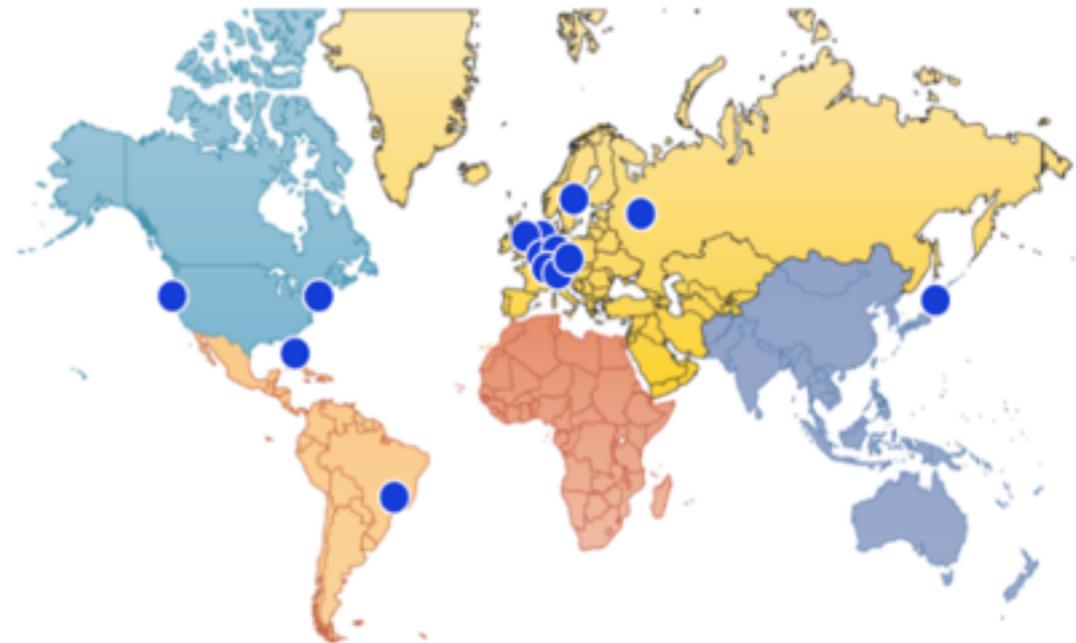
# Visualising BGP Routing Information

## Section 5



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

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



The screenshot shows the RIPE NCC 'At a Glance' interface for the prefix 140.78.0.0/16. The interface is divided into several panels:

- Prefix Overview (140.78.0.0/16):** Shows the prefix is announced by AS1205 (JKU-LINZ-AS University Linz, AT) and is part of the 140.0.0.0/8 legacy space. A callout asks: "Announced? By which AS?".
- Geoloc (140.78.0.0/16):** Displays a map of Central Europe with a blue circle indicating the location of the prefix. A callout asks: "Registered in the RIPE Database?".
- Registry Browser (140.78.0.0/16):** Shows the RIPE database entry for the prefix, including details like netname (JKU-LAN), country (AT), and mnt-by (AS1205-MNT). A callout asks: "Registered in the RIPE Database?".
- Routing Status (140.78.0.0/16):** Shows that the prefix was 100% visible by 97 of 97 RIS full peers at 2014-08-13 08:00:00 UTC. A callout asks: "Announced? By which AS? What % visible? Since when?".

**Announced?**

**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  
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

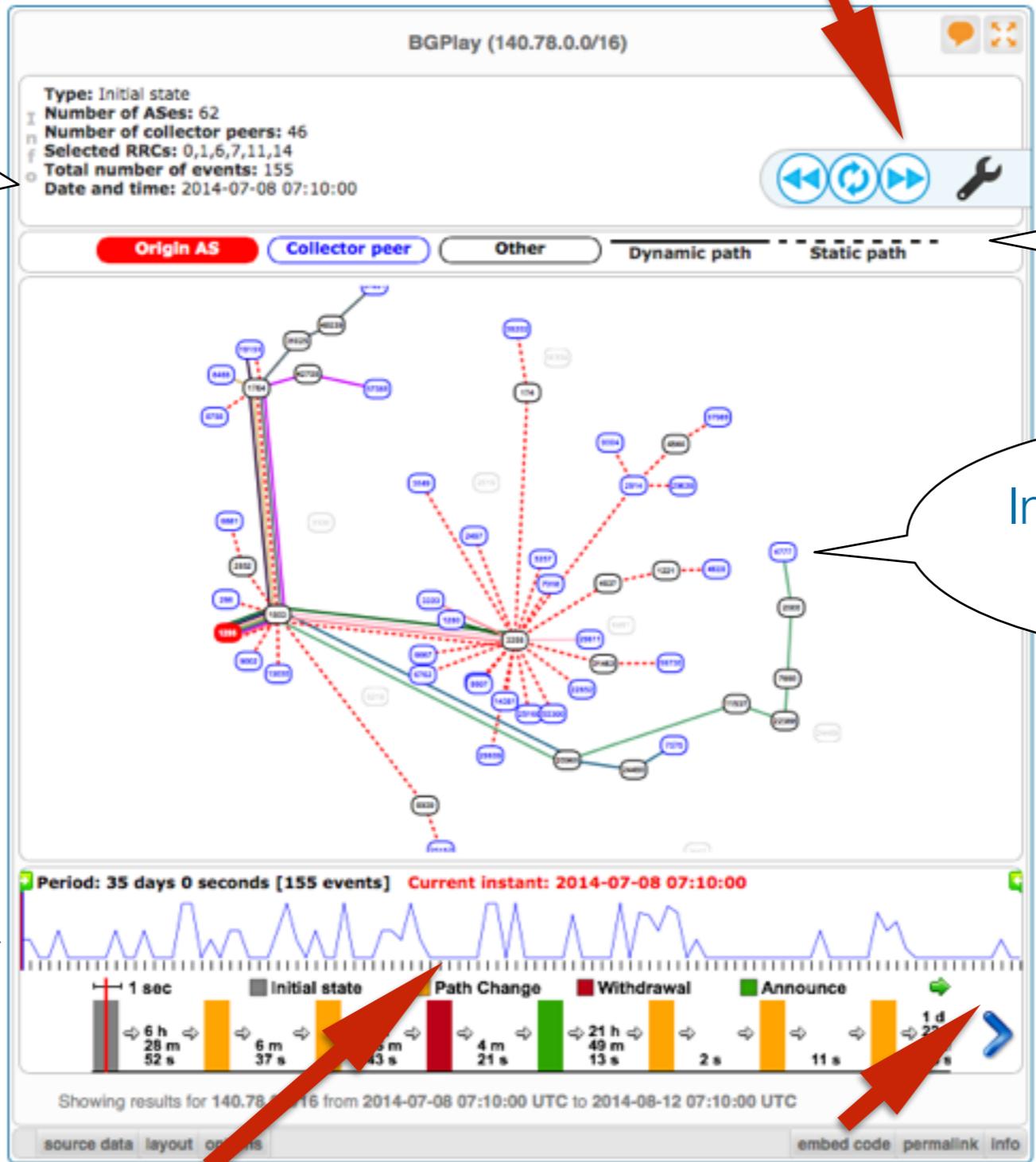
**Routing Status (AS1205)**  
At 2014-08-13 08:00:00 UTC, AS1205 was visible to 100% of 97 IPv4 and 2% of 95 IPv6 RIS full peers.  
First ever seen as origin announcing 193.186.172.0/22, on 2004-01-03 00:00:00 UTC.  
Originated IPv4 prefixes: 3  
Originated IPv6 prefixes: 0  
Observed BGP neighbours: 2  
Address space announced (IPv4): 67584 IPs  
Address space announced (IPv6): equiv. to 0 /48s  
Advanced Settings  
Consent 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

- **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

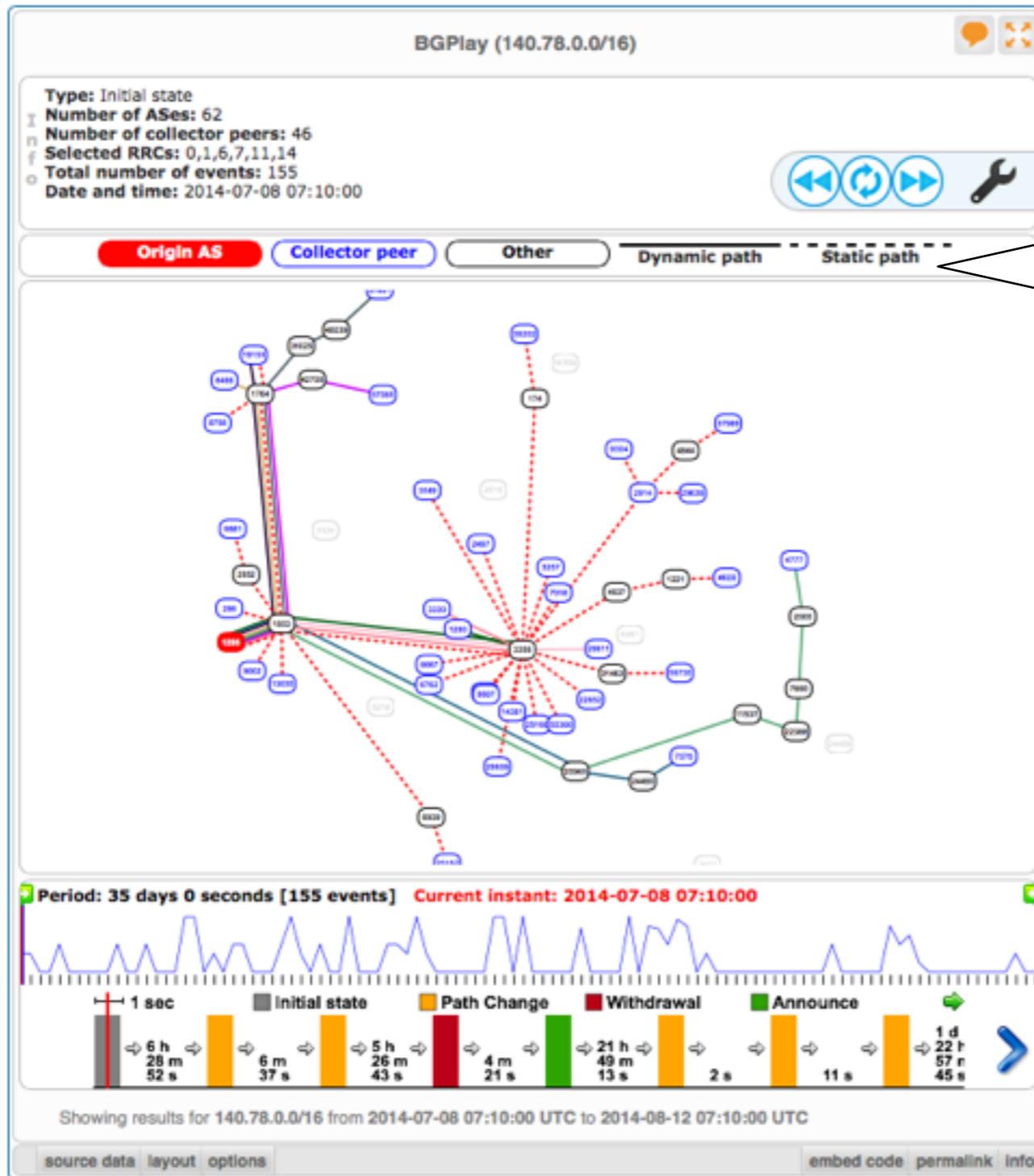
Interactive animated graph

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

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

**i** 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  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

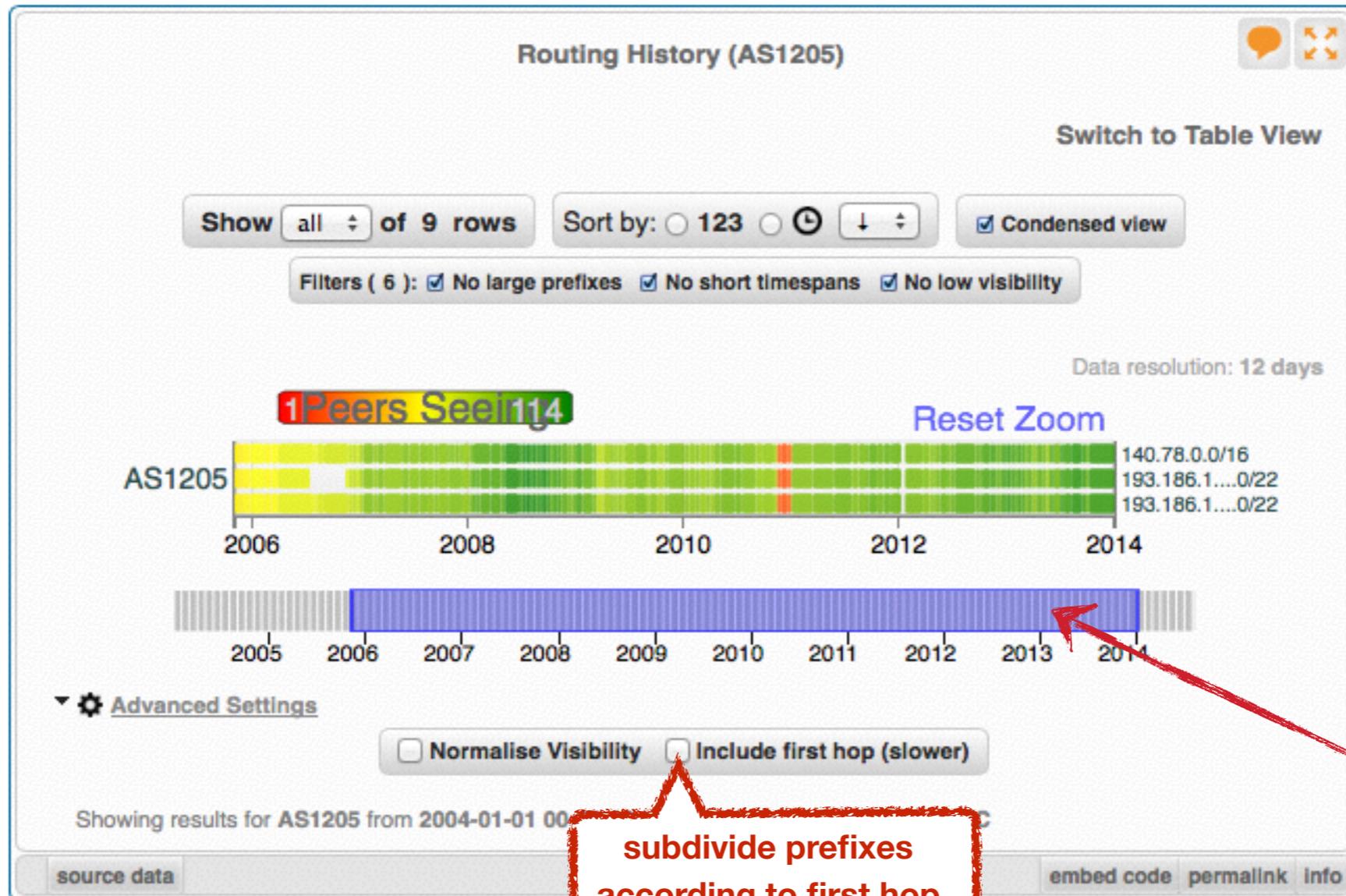
**Advanced Settings**

Exclude low visibility prefixes

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

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

[source data](#) [embed code](#) [permalink](#) [info](#)





## **Exercise: BGPlay**

### **Exercise B**

**Refer to the exercise booklet**



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



# Reporting Abuse

## Section 6



- **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



You are here: Home > Data & Tools > RIPEstat > Use Cases > Looking For Abuse Information

### RIPEstat Abuse Contact Finder

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.

- i** You can learn more about network abuse in general and what you can do to stop it on the RIPEstat Abuse Information page.
- i** You can learn more about how the RIPEstat Abuse Contact Finder works and how to report abuse on this tutorial on RIPE Labs.



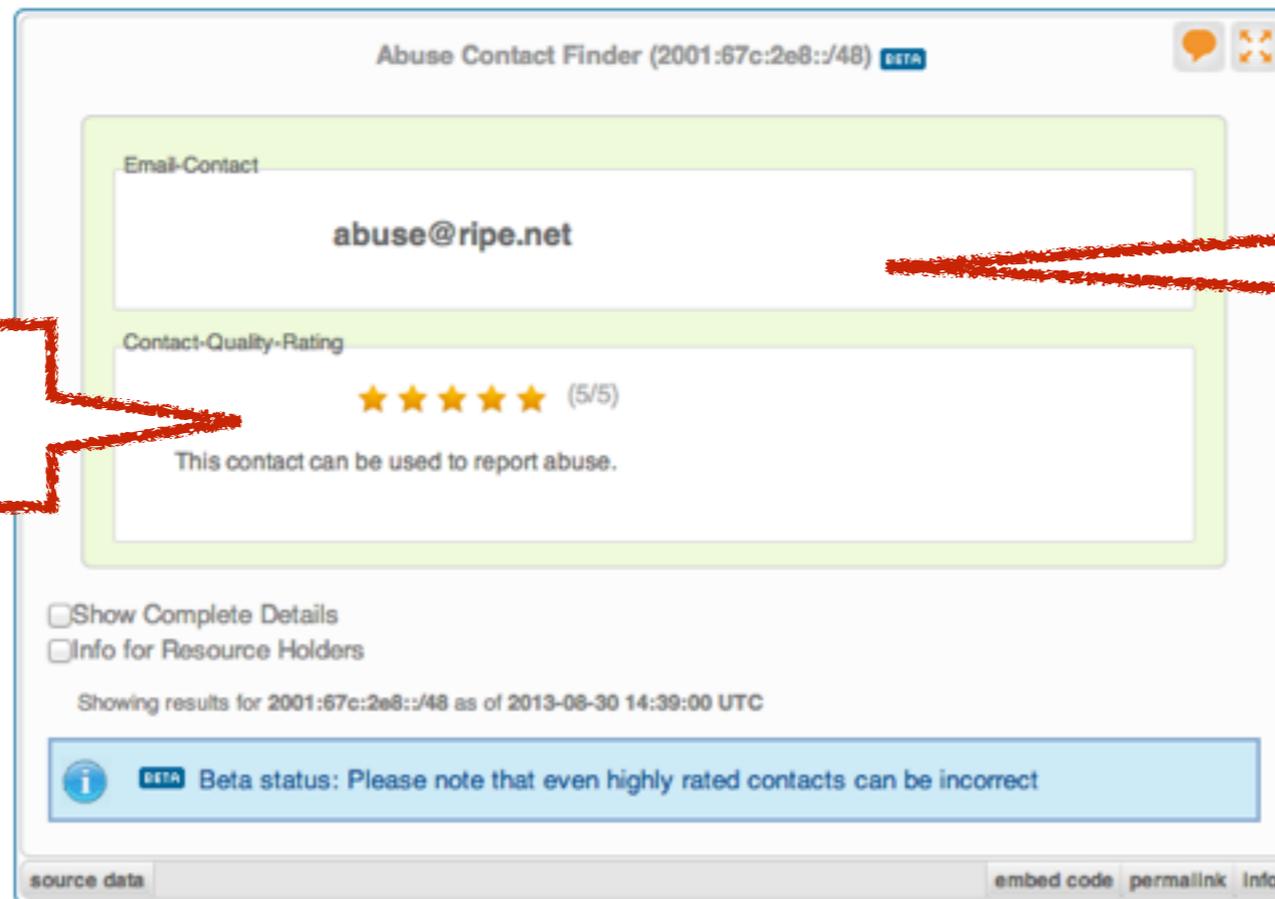
RIPEstat Abuse Contact Finder ETA

Enter an IP address

embed code permanent info



For regular RIPEstat users: this widget, of course, can also be found on the regular result page in the “Anti Abuse” tab.



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** <sup>o</sup>  
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.** <sup>o</sup>

- RIR Information

RIR	RIPE NCC	RIPE's Whois	<a href="https://apps.db.ripe.net/search/query.html">https://apps.db.ripe.net/search/query.html</a>
-----	----------	--------------	-----------------------------------------------------------------------------------------------------



# Exercise: Handling Abuse

## Exercise C

Refer to the exercise booklet



- **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 on an abuse report**

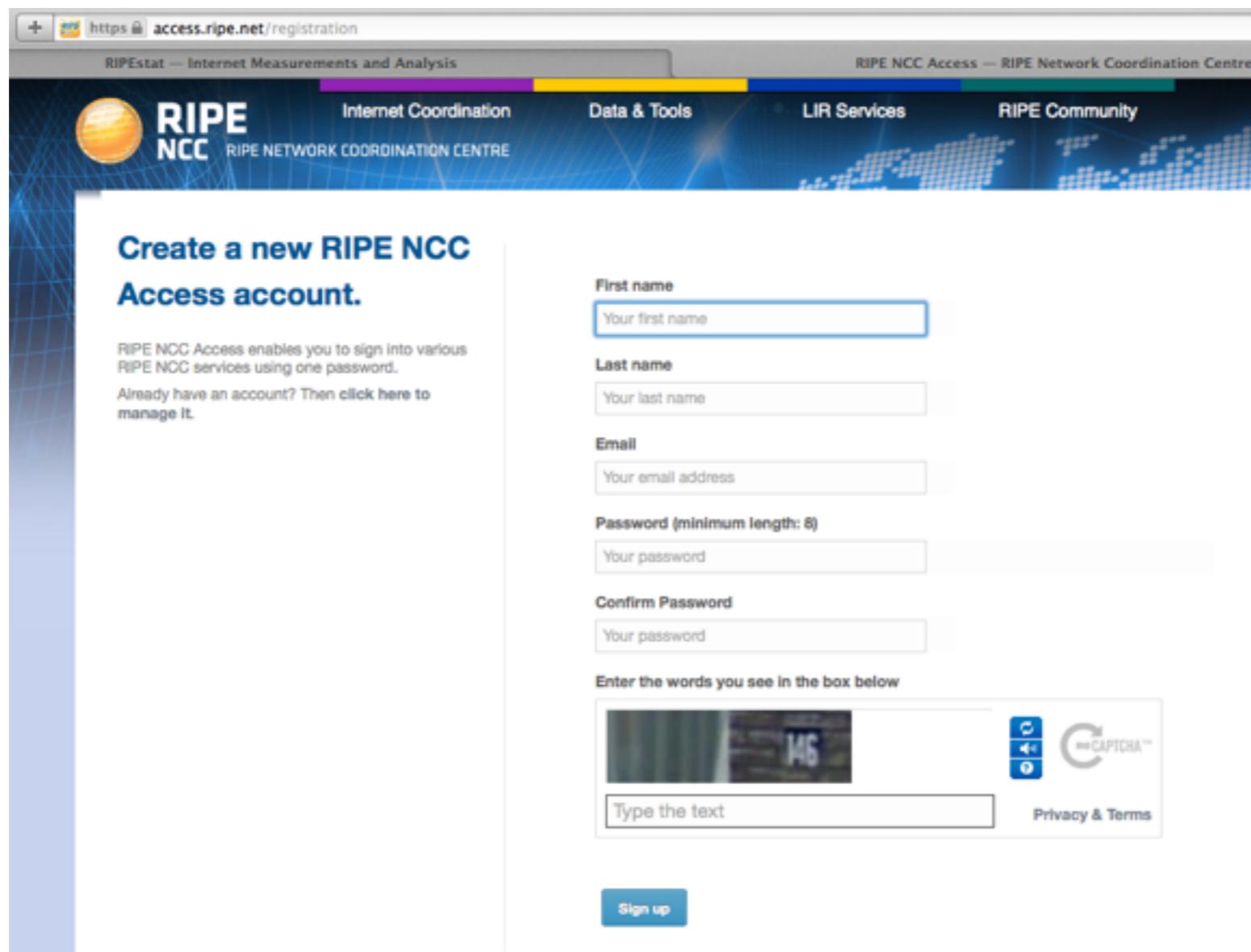


# Personalising RIPEstat

## Section 7

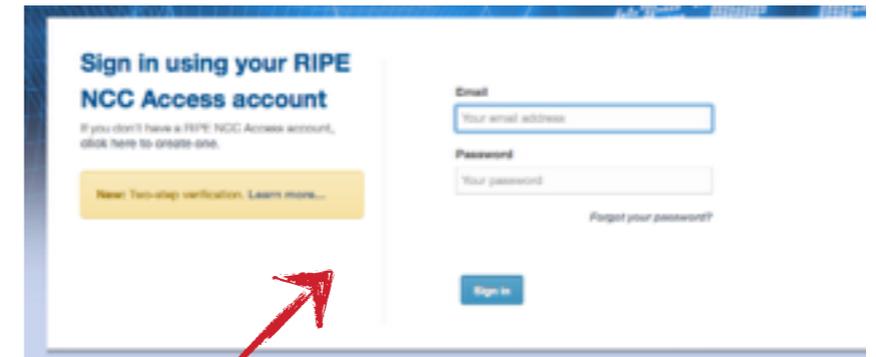


<https://access.ripe.net>



The screenshot shows the registration page for a RIPE NCC Access account. The browser address bar displays <https://access.ripe.net/registration>. The page header includes the RIPE NCC logo and navigation links for Internet Coordination, Data & Tools, LIR Services, and RIPE Community. The main heading is "Create a new RIPE NCC Access account." Below this, there is a brief description of the service and a link to manage an existing account. The registration form consists of several fields: "First name", "Last name", "Email", "Password (minimum length: 8)", and "Confirm Password". A CAPTCHA challenge is also present, with a box containing the number "146" and a "Type the text" input field. A "Sign up" button is located at the bottom of the form.

- If you have recurring lookup tasks that involve different widgets spread over multiple tabs
- Building a “history” of your lookups



- **Create custom views**
  - Click the “MyView” button
  - Drag and drop the widgets you want to the MyView tab
- **Created under “ASN” or “IP”**

The screenshot shows the MyView interface. On the left is a sidebar with a list of widget categories: At a Glance (4), Routing (11), DNS (1), Anti Abuse (1), Database (5), Geographic (2), Activity (2), and Suggestions (1). Below these is a '+ MyView' button circled in red. Underneath is a 'MyView-Test1' section with a gear icon and '(2)', and a 'New (my-v...)' section with a gear icon and '(0)'. The main view area contains the text 'This view is empty :( Add content by dragging a widget onto the tab of this view.' Below this is a preview of a widget titled 'Resource Overview' which is also circled in red. The preview shows a 'Registry Browser (AS)' for 'aut-num: AS3333' with details like 'as-name: RIPE-NCC-AS' and 'descr: Reseaux IP Europeens Network Coordination Centre (RIPE NCC)'. A red callout box with a pointer says 'Newly created MyView'. At the top right of the main view area is a 'permalink' button. At the bottom of the main view area is the text 'For more information on custom views, please go to custom views.'

MyViews are only visible to you. The option to share your views will be available soon!

Re-order widgets  
as you like

The screenshot displays the MyView interface for AS1205. On the left, a sidebar lists various widget categories: At a Glance (4), Routing (11), DNS (1), Anti Abuse (1), Database (5), Geographic (2), Activity (2), and Suggestions (1). Below these are options to '+ MyView', 'MyView-Test1 (2)', and 'Monitor-2 (2)'. The main content area shows two widgets: 'AS Overview (AS1205)' and 'Routing Status (AS1205)'. The AS Overview widget displays an 'Announced' status, the holder 'JKU-LINZ-AS University Linz,AT', and information about the 16-bit ASN block. The Routing Status widget shows a yellow alert: 'At 2014-08-14 08:00:00 UTC, AS1205 was visible to 100% of 97 IPv4 and 2% of 95 IPv6 RIS full peers.' It also lists statistics: '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', and 'Address space announced (IPv6): equiv. to 0 /48s'. A blue info box at the bottom states: 'Results exclude routes with very low visibility (less than 3 RIS peers seeing).'.

- Rename
- Re-order
- Control visibility
- Remove

- MyView is only accessible after you have queried an ASN or IP
- A MyView created after an ASN query is only **visible** for other ASN queries
- A MyView created after IP query is only **visible** for other IP queries
- This can be changed via settings

**Monitor-2 was created after an ASN query**

**Monitor-2's Settings**

**Resource Properties**

Simplified | Advanced

For what resource type should this view be visible:  
(Change by clicking on property)

ASN  IP  Hostname  Country

view will be shown for resource type (e.g. 'ASN')  
 view will **not** be shown for resource type (e.g. 'ASN')

Ok

AS Overview (AS3333)  
Announced

At a Glance (4)  
Routing (11)  
DNS (1)  
Anti Abuse (1)  
Database (5)  
Geographic (2)  
Activity (2)  
Suggestions (1)  
+ MyView  
MyView-Test1 (2)  
**Monitor-2** (2)

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

You can change visibility, to make Monitor-2 available for IP range queries

- **RIPEAccess login required**
- **Customised selection of widgets**
- **It's like an extra tab, specifically for your queries**
- **By default, available for one type of resource  
(ASN or IP)**
- **Can't be shared**



## **Exercise: MyView**

### **Exercise D**

**Refer to the exercise booklet**



- **Create a RIPE Access account (if you don't already have one)**
- **Create a MyView for a prefix containing the following widgets:  
Routing Status, Looking Glass and Routing History**
- **Create another MyView with a least two widgets and give it a meaningful name**



# Comparing Networks

## Section 8



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

Select a widget:  and a resource:

**1** Select "Routing History" widget

**2** enter "AS3333"

**3** [Red circle highlights the Routing History widget for AS3333]

### Routing History (as3333)

Switch to Table View

Show  of 9 rows

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

### Routing History (as1205)

Switch to Table View

Show  of 9 rows

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

### Prefix Size Distribution (as1205)

by number of  
 Prefixes  Addresses

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

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

## Compare Results

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

The screenshot shows the 'Compare Results' interface. At the top, there is a form to 'Select a widget' (set to 'Routing History') and 'and a resource' (set to 'as3333'). Below this are '+ Add' and 'Permalink' buttons. A green callout box points to the 'Permalink' button with the text 'Share via "Permalink"'. Below the form, a URL is displayed: <https://stat.ripe.net/special/compare-results#widget-container-0.resource=as1205&widget-container-0.widgetType=prefix-size-distribution&widget-cont>. The main area contains three widgets: 1. 'Routing History (as3333)' showing a heatmap of peer sessions over time (2005-2014) for various IP ranges. 2. 'Routing History (as1205)' showing a similar heatmap for AS1205. 3. 'Prefix Size Distribution (as1205)' showing a pie chart for prefix sizes, with 'by number of' and radio buttons for 'Prefixes' and 'Addresses'. The pie chart shows a distribution with a red segment and a green segment, and a label '/16 (v4): 1'.

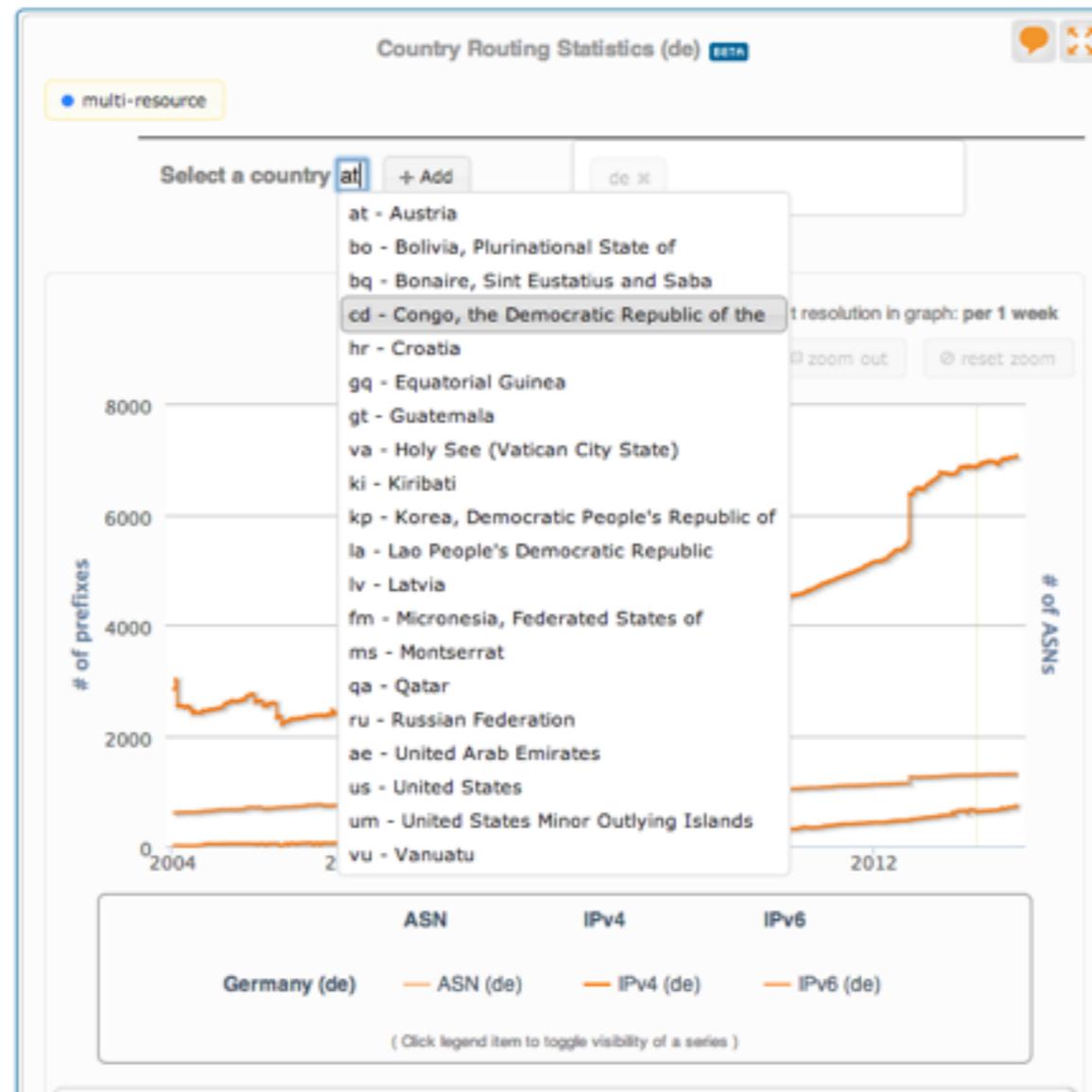
- **No login required**
- **Add widgets AND input query for each widget (ASN or IP or...)**
- **It is a result page with widgets and query results**
- **Share it via a permanent link**

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

- Country Routing Statistics





# Exercise: Comparing Results

## Exercise E

Refer to the exercise booklet



- **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!**



# Exercise: RIPEstat Use Cases

## Exercise F



- **How can you see whether someone has hijacked your prefixes?**
  
- **How can you see whether you had an outage?**





# RIPE Atlas



## RIPE Atlas

- Introduction to RIPE Atlas
- What you can get from RIPE Atlas as a visitor
- Exploring public probes
  - *Live Demo*
- Finding public measurements
  - *Exercise F: Analyse results*
- Creating a measurement
  - *Exercise G: Create a measurement*
- Network Monitoring
  - *Exercise H: Setting up 'Status Checks'*
- More RIPE Atlas features
- How to host a probe
- Advanced topics
  - Use cases and success stories
  - RIPE Atlas anchors
  - RIPE Atlas community

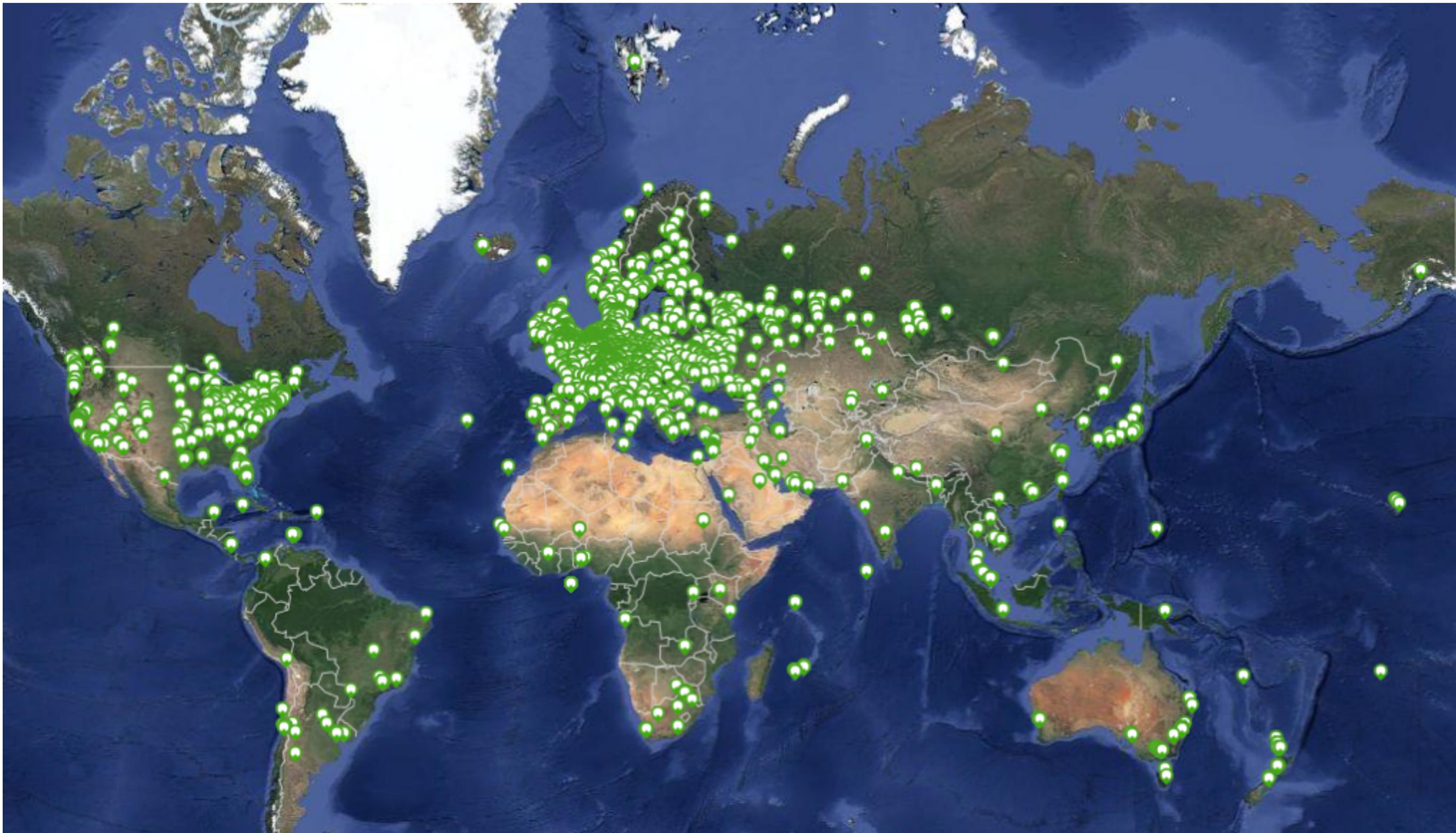


# Introduction to RIPE Atlas

## Section 9



- **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**



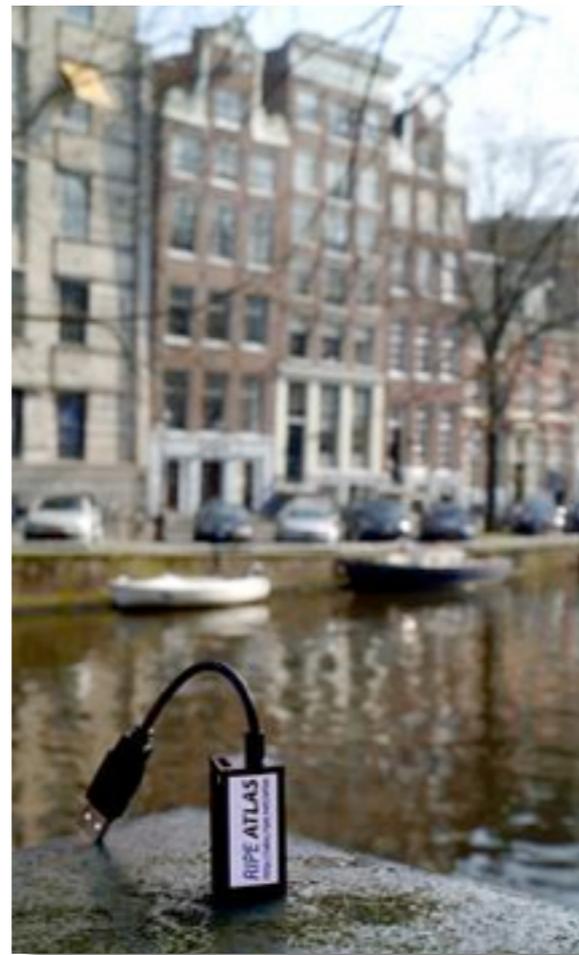
## Global RIPE Atlas Network Coverage

This map shows the locations of all RIPE Atlas probes, including those that are connected, disconnected and abandoned (meaning they have not been connected for a long period of time).



- 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





- 7,300+ probes connected
- 4,500+ 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	749
Germany	723
France	616
United Kingdom	518
Russia	400
Nederland	385
Ukraine	171
Czech Republic	157
Belgium	156
Italy	136

- <https://atlas.ripe.net>
- Users mailing list: [ripe-atlas@ripe.net](mailto:ripe-atlas@ripe.net)
- Articles & updates on RIPE Labs:  
<https://labs.ripe.net/atlas>
- Questions and bugs: [atlas@ripe.net](mailto:atlas@ripe.net)



# What you can get from RIPE Atlas as a visitor

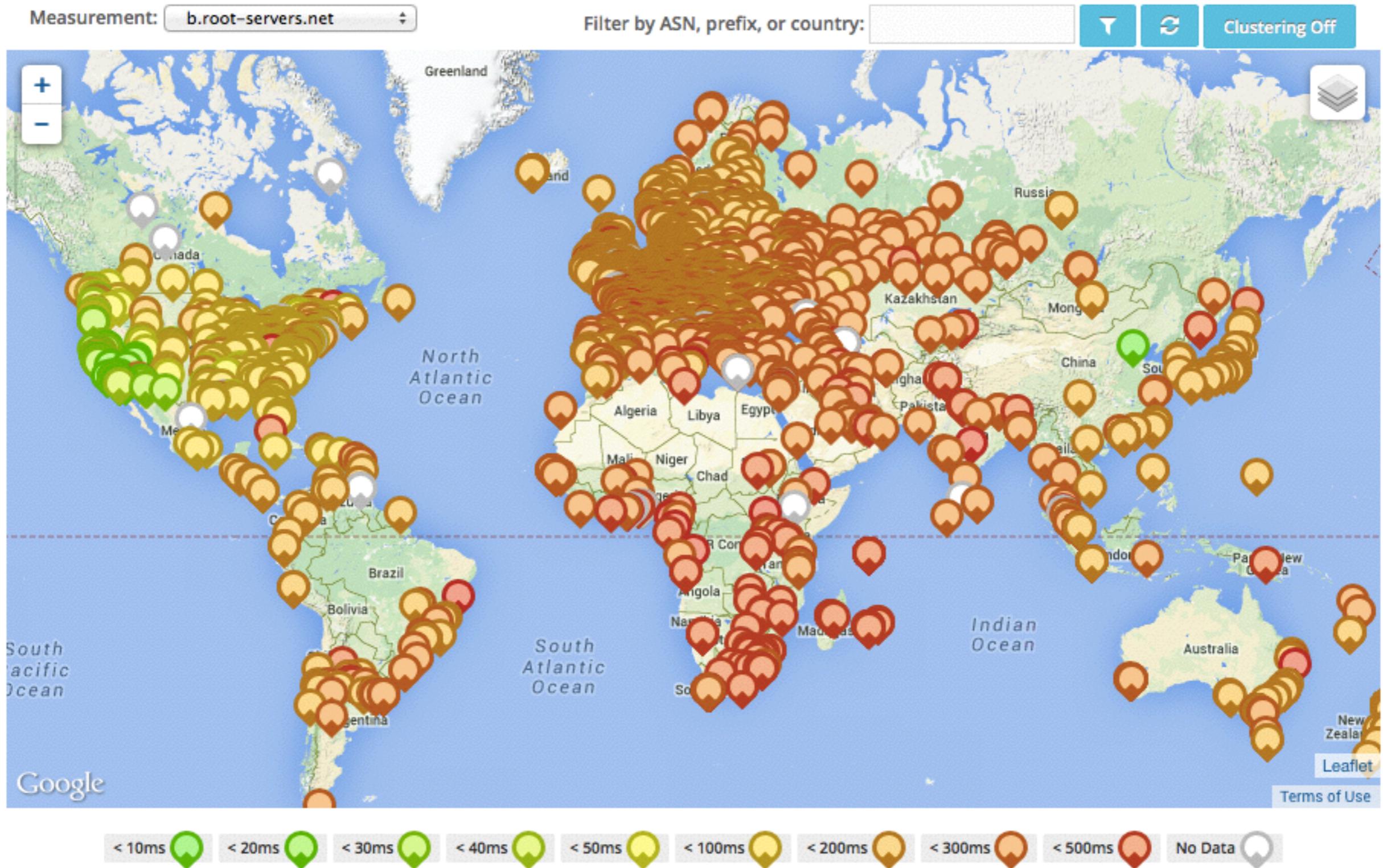
## Section 10



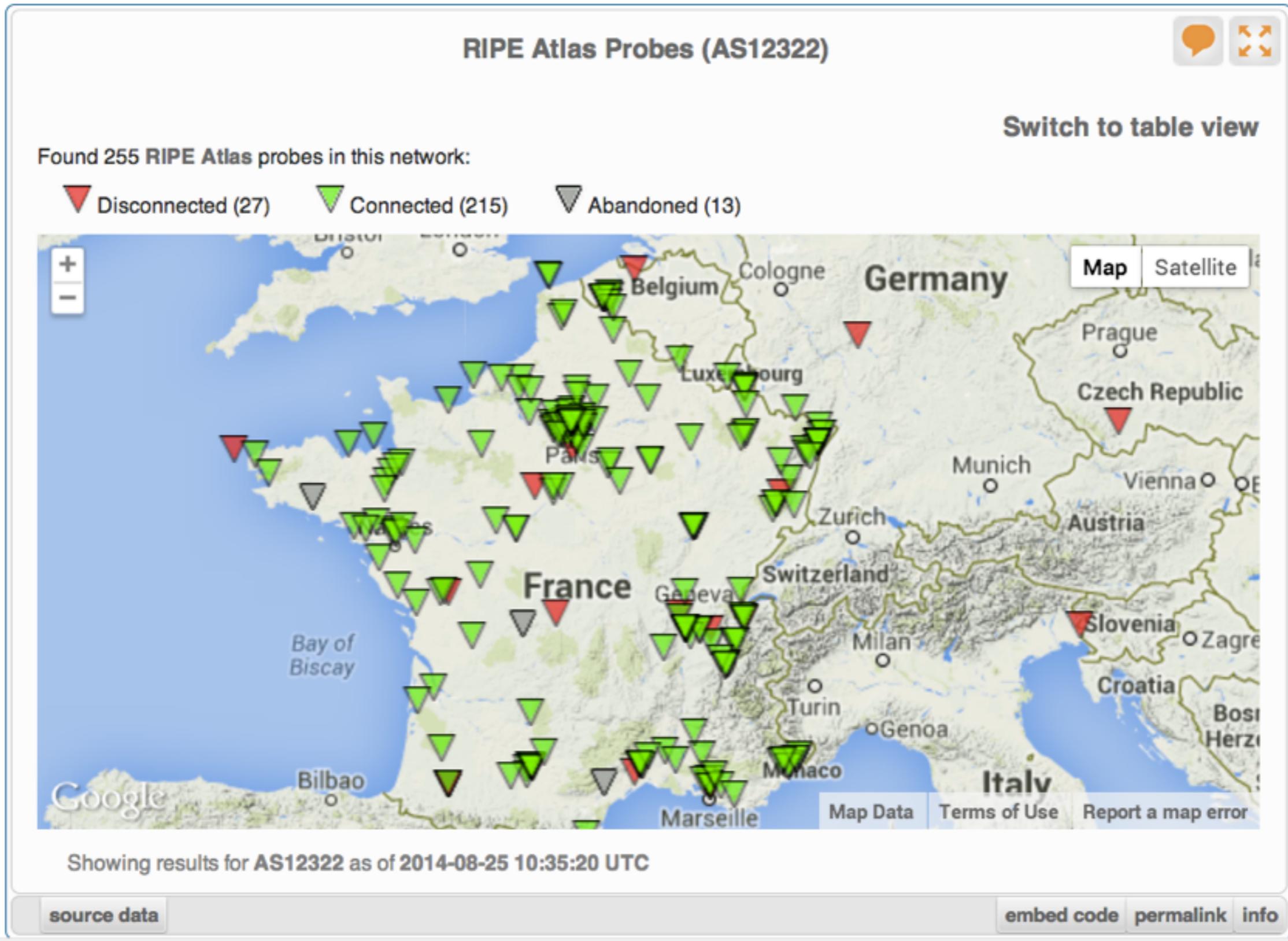
The screenshot shows a web browser window with the URL <https://atlas.ripe.net/results/maps/>. The page title is "RIPE Atlas - Map Visualisations". A navigation menu is visible, including "Internet Maps", "Coverage & Statistics", "Analyses & Use Cases", "Graphs", and "RIPE Atlas Anchors". The main content area displays eight different map visualisations arranged in a 2x4 grid, each with a title and a descriptive paragraph.

- DNS root instances:** Shows, for each probe, which root DNS server instance the probe ends up querying, when they ask a particular root server. In other words, it shows the "gravitational radius" for root DNS server instances.
- Comparative DNS Root RTT:** Shows a comparison of response time for DNS SOA queries to all the root DNS servers. For each probe, a marker shows the "best" root server with colour identifying the related minimum response time.
- DNS root server TCP/UDP performances:** This map shows the reply time to the SOA query of a particular root DNS server, over the selected transport protocol (UDP, TCP or comparison of the two) for each probe.
- RTT to fixed destinations:** Shows the colour coding for the RTT value for the particular destination for each probe. The minimum / average / maximum values are based on standard "ping" measurements.
- Reachability of fixed destinations:** Shows if the particular fixed destination is reachable or not from each probe. Red markers indicate that the specific destination for these probes are unreachable and green reachable.
- RIPE Atlas network extent:** Shows the extent of the RIPE Atlas network, with all active and inactive probes.
- Percentage of probes per country:** Shows the distribution of probes in the world using colouring to highlight the most populated countries. Only up probes are taken into account.
- RIPE Atlas anchor locations:** Shows the location of RIPE Atlas anchors.

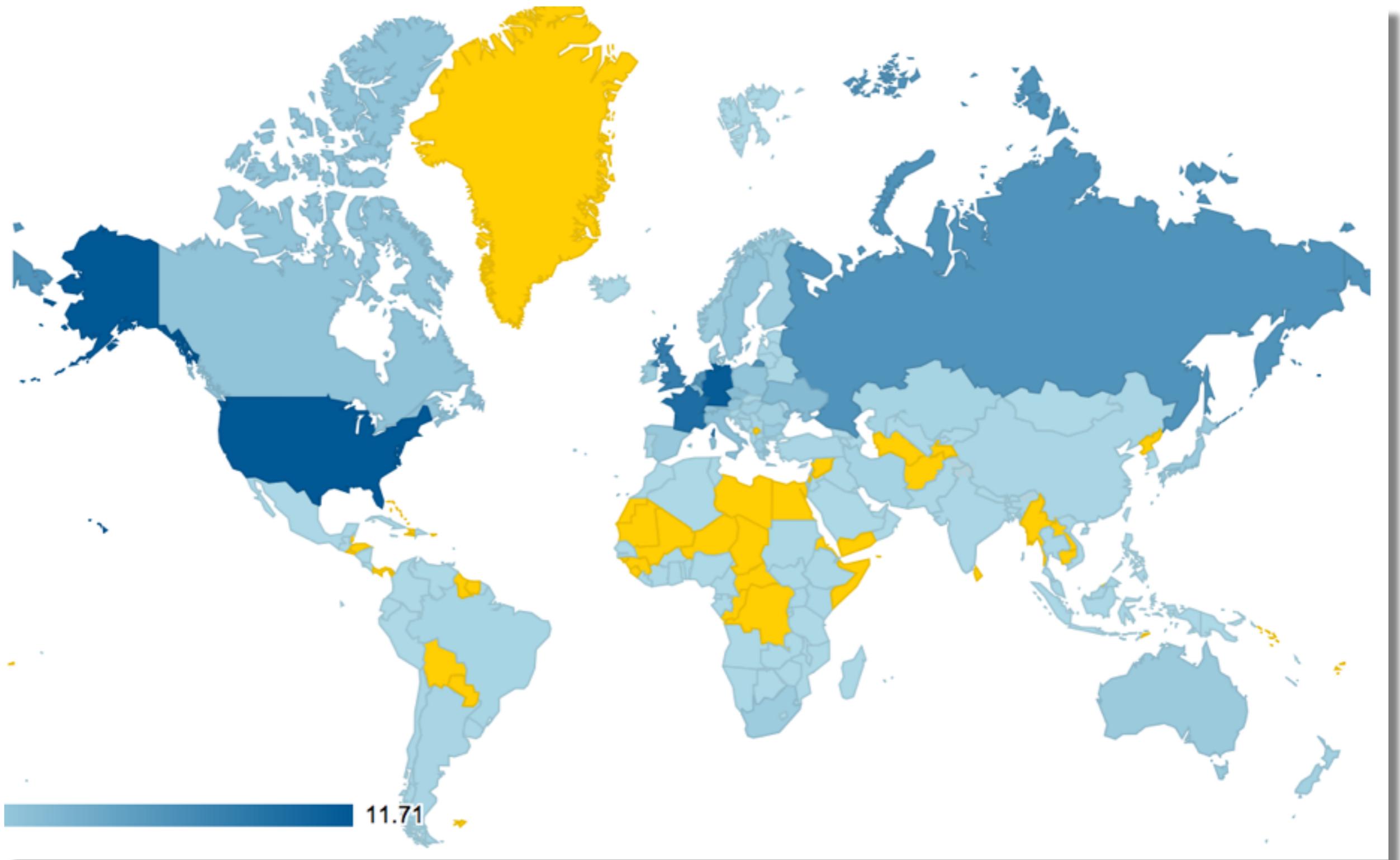
# Where is B-root?



# Probes per ASN (in RIPEstat)



# Where we want to place probes



## RIPE Atlas: Measurements With Tagged Probes Coming Soon

Suzanne Taylor Muzzin — Sep 12, 2014 12:05 PM

We've been busy working on a number of developments, and we're really excited about a 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

## 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 the outage using RIS and RIPE Atlas.

Tags: atlas, routing

## RIPE Atlas Midsummer Update 2014

Fatemah 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

## 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, they found ways to decrease latency and improve performance for users around the world.

پروژه بین المللی سنجش اینترنت - رایب اطلس  
Khoramyar  
پست ها : 122  
تاریخ عضویت : شنبه ۰۹ فروردین ۱۳۹۳  
pm 12:52 2013  
times 52 : Has thanked  
times 57 : Been thanked

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 اطلس شروع کرده است.  
وب سایت رسمی پروژه اطلس: <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 میگذارد. 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 پروتکل 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.

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をク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。月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、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

1002331 - Ping to ping.mesh.ad.jp

General Information Probes RRDs Map Seismograph



# Looking up public probes

## Section 11



- **Create an RIPE NCC Access account**
  - Same for 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**

Filter based on  
ASN, Country,  
Location...

My Atlas / Probes

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**

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
208				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

Probes  
Measurements  
Credits  
API Keys  
Anchors  
Sponsorships  
Settings

Possible to  
mark probes as  
favourites

The screenshot shows a web browser window with the URL <https://atlas.ripe.net/probes/4170/>. The page title is "Randomdata hackerspace". The navigation bar includes links for "RIPE Atlas Home", "About RIPE Atlas", "Get Involved", "Results", "My Atlas: BECHA (Xs4all)", and "Logout". The 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	<b>NAT</b>

### Connection & Traffic

Bits/s | Packets/s

The graph displays two data series: Bits/s (blue line) and Packets/s (orange line). The y-axis ranges from 0 to 10k. The x-axis shows time from 03:00 to 06:00. Both series show a consistent, fluctuating pattern between approximately 2k and 4k.

### Connected Time

1 week, 3 days

The bar chart shows the number of days the probe was connected in July and August. July has approximately 25 days of connection, and August has approximately 25 days of connection.

### Management Sharing

Only the probe host is permitted to administer this probe.

**Firmware** 4650

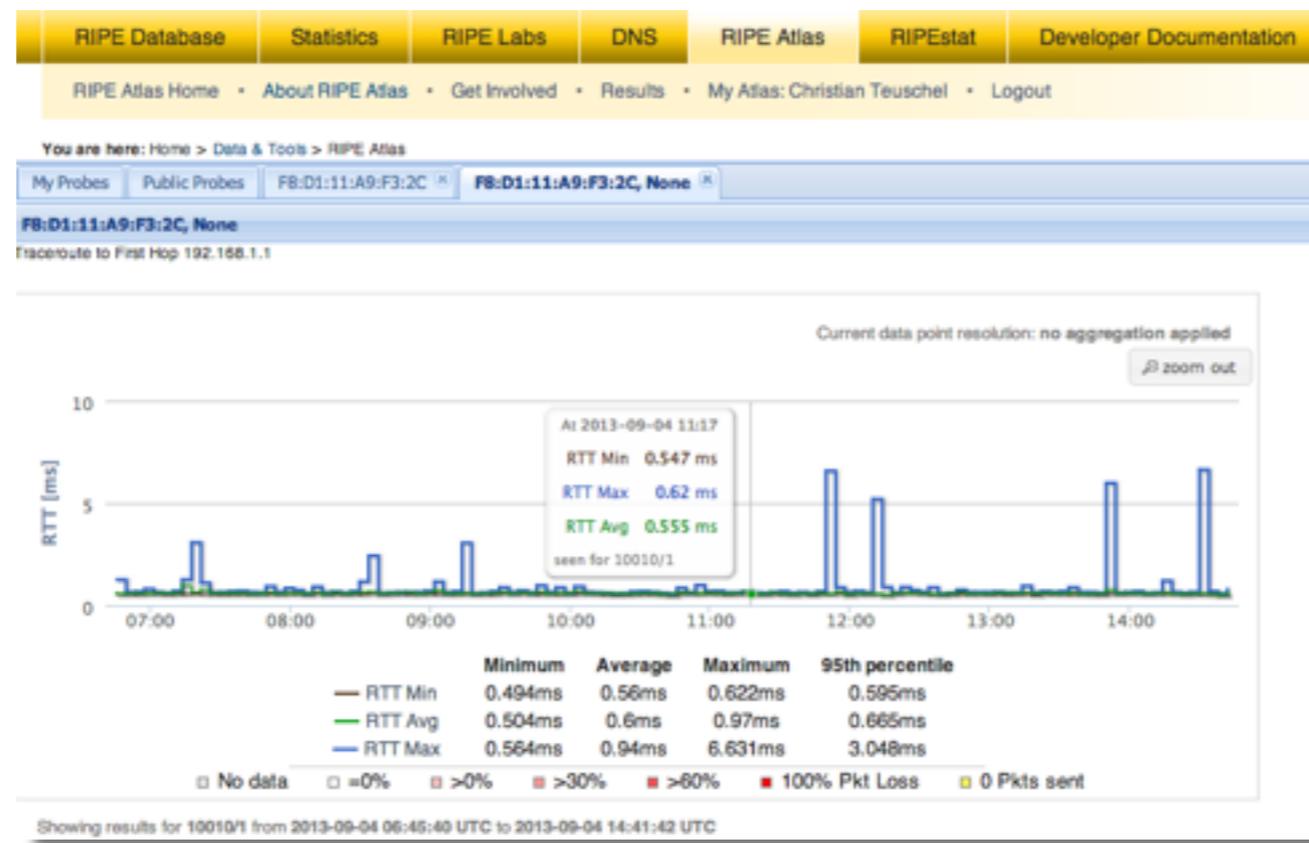
**Architecture** probev1

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

**#4170**

The map shows the probe location in Utrecht, Netherlands, near the Oudwijk area. The map includes labels for "Utrecht", "Binnenstad", "Wittevrouwen", and "Oudwijk".

- Replace multiple RRDs 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

## Section 12



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

My measurements		Public measurements						
ID ▲	Type	Origin	Target	Descript...	#Probes (req/low/cur)	Status	Start Time c. (UTC)	End Time c. (UTC)
1000002	Ping	Area:EU(10)	atlas.ripe.net		10 / 5 / 7	Ongoing	2011-10-27 10:15	Never
1000005	Traceroute	Area:WW(10)	furmint.kistel.hu		10 / 5 / 0	Stopped	2011-11-16 10:33	2012-10-24 08:22
1000010	Ping6	Area:WW(8)	2001:500:14:6015:ad::1		8 / 4 / 0	Stopped	2011-11-18 10:00	2011-11-23 10:00
1000011	Traceroute6	Area:WW(8)	2001:500:14:6015:ad::1		8 / 4 / 0	Stopped	2011-11-18 10:01	2011-11-23 11:00
1000017	Ping	Area:WW(1)	64.147.85.24		1 / 1 / 0	Stopped	2011-11-18 16:43	2011-11-23 16:17
1000018	Ping	Area:WW(1)	64.147.85.24		1 / 1 / 0	Stopped	2011-11-18 16:45	2011-11-23 16:17
1000019	Ping	Area:WW(5)	91.199.39.2		5 / 1 / 0	Stopped	2011-11-18 17:01	2011-11-29 08:00
1000020	Ping6	Area:WW(10)	2001:500:14:6049:ad::1		10 / 5 / 0	Stopped	2011-11-18 17:10	2011-11-29 11:49
1000021	Ping	Area:WW(10)	houser.karrenberg.net		10 / 9 / 0	Stopped	2011-11-20 12:22	2011-11-21 13:00
1000022	Ping	Area:WW(10)	kgb.karrenberg.net		10 / 5 / 0	Stopped	2011-11-20 12:22	2012-08-02 19:52
1000023	Ping6	Area:WW(10)	2001:980:3500:1:220:...		10 / 5 / 0	Stopped	2011-11-20 13:00	2011-11-21 14:00
1000024	Ping	Area:WW(1)	84.205.72.1		1 / 1 / 0	Stopped	2011-11-20 17:37	2011-11-23 18:00
1000025	Ping6	Area:WW(1)	2001:7fb:fd02::1		1 / 1 / 0	Stopped	2011-11-20 17:43	2011-11-23 18:00
1000035	Ping	Area:WW(10)	94.100.125.129		10 / 5 / 0	Stopped	2011-11-22 15:59	2013-04-29 10:26
1000036	Ping	Area:WW(10)	94.100.126.15		10 / 5 / 0	Stopped	2011-11-22 16:00	2013-04-29 10:25
1000037	Ping	Area:WW(10)	94.100.112.1		10 / 5 / 0	Stopped	2011-11-22 16:02	2013-04-29 10:25

Page 1 of 221 | Clear Filters | Measurements 1 - 30 of 6621

# Searching for msm by type

My measurements		Public measurements		
ID ▲	Type	Origin	Target	Des
1000011	Traceroute6		00:14:6015:ad::1	
1000044	Traceroute6		as.fbi.h-da.de.	
1001615	Traceroute6		g.no	Trac
1001859	Traceroute6		e	IPv6
1002007	Traceroute6			
1002008	Traceroute6			
1002015	Traceroute6	Area:WW(7...	2a02:a	
1002020	Traceroute6	Area:WW(7...	2a02:a	
1002021	Traceroute6	Area:WW(7...	moe.n	
1002022	Traceroute6	Area:WW(7...	ipv6.d	
1002023	Traceroute6	Area:WW(7...	www.n	
1002024	Traceroute6	Area:WW(7...	2A02:E	
1002025	Traceroute6	Area:WW(7...	service	
1002027	Traceroute6	Area:WW(7...	2a03:5	
1002028	Traceroute6	Area:WW(7...	2001:6	
1002029	Traceroute6	Area:WW(7...	2A02:2	
1002030	Traceroute6	Area:WW(7...	2A03:5	
1002031	Traceroute6	Area:WW(7...	www.e	

Sort Ascending

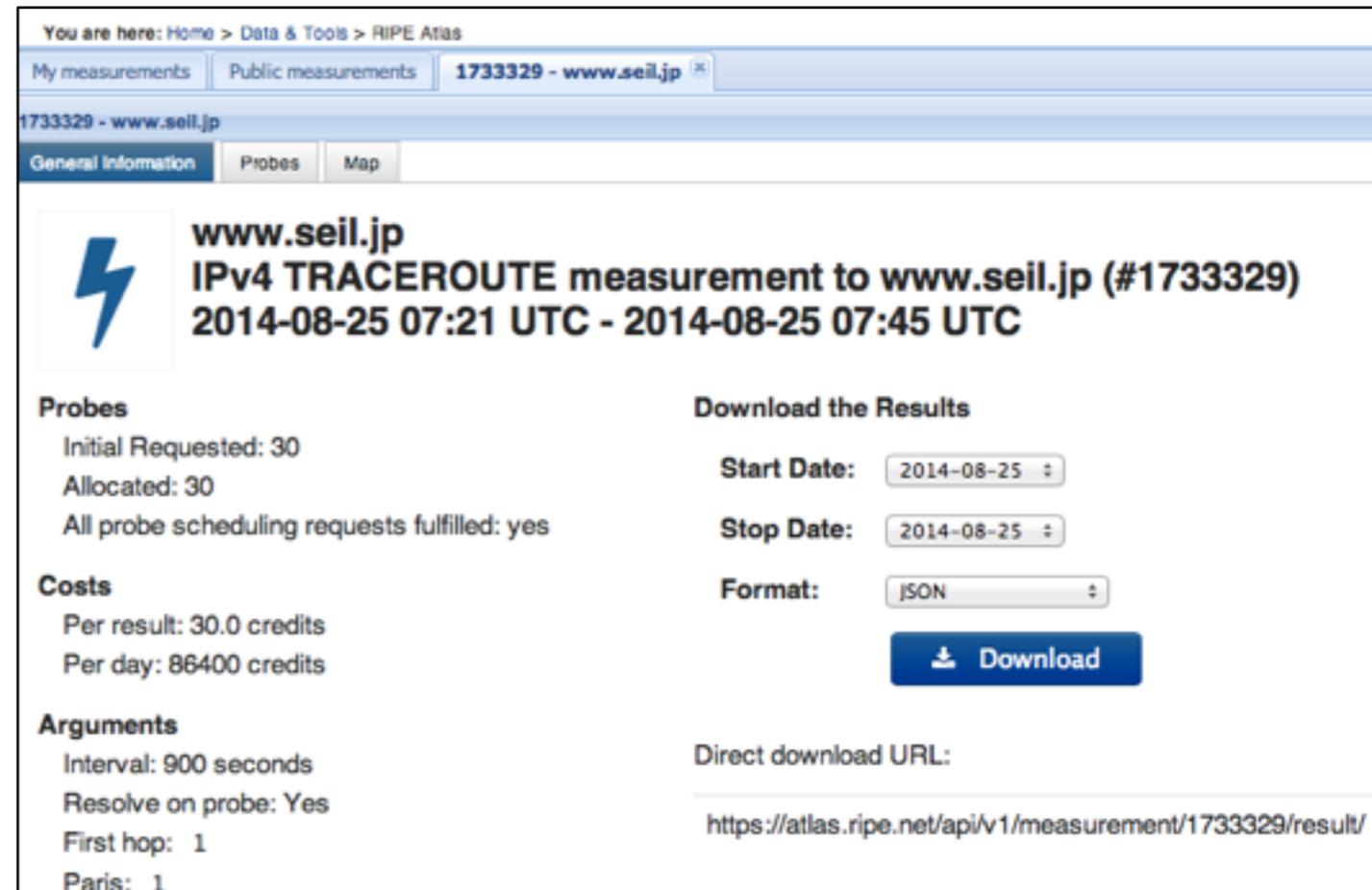
Sort Descending

Columns

Filters

- One-off
- Ping
- Traceroute
- Ping6
- Traceroute6
- DNS
- DNS6
- HTTP
- HTTP6
- Traffic
- SSLCert
- SSLCert6

- Click on msm, then “Download”
- Or go to URL
- Or use the API
- Results in JSON
- Libraries for parsing available on gitHub



The screenshot shows the RIPE Atlas interface for a specific measurement. The breadcrumb trail is "You are here: Home > Data & Tools > RIPE Atlas". The page title is "1733329 - www.seil.jp". The main content area is titled "www.seil.jp IPv4 TRACEROUTE measurement to www.seil.jp (#1733329) 2014-08-25 07:21 UTC - 2014-08-25 07:45 UTC". It includes sections for "Probes" (Initial Requested: 30, Allocated: 30, All probe scheduling requests fulfilled: yes), "Costs" (Per result: 30.0 credits, Per day: 86400 credits), and "Arguments" (Interval: 900 seconds, Resolve on probe: Yes, First hop: 1, Paris: 1). On the right, there is a "Download the Results" section with "Start Date" and "Stop Date" dropdowns set to 2014-08-25, a "Format" dropdown set to JSON, and a blue "Download" button. Below this is a "Direct download URL:" field with the URL "https://atlas.ripe.net/api/v1/measurement/1733329/result/".

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

- 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)



# Search for msm by target in RIPEstat

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

Go to “RIPEstat >  
“RIPE Atlas Activity”

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



# Exercise: Analyse Measurements Results

## Exercise G

Refer to the exercise booklet





# Creating a Measurement

## Section 13



- 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 probe earns credits**
- **Earn extra credits by:**
  - Being a member
  - Hosting an anchor
  - Sponsoring probes

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

You are here: Home > Data & Tools > RIPE Atlas > My Atlas > My Credits

## Account Information

Give credits to someone

My Atlas / Credits

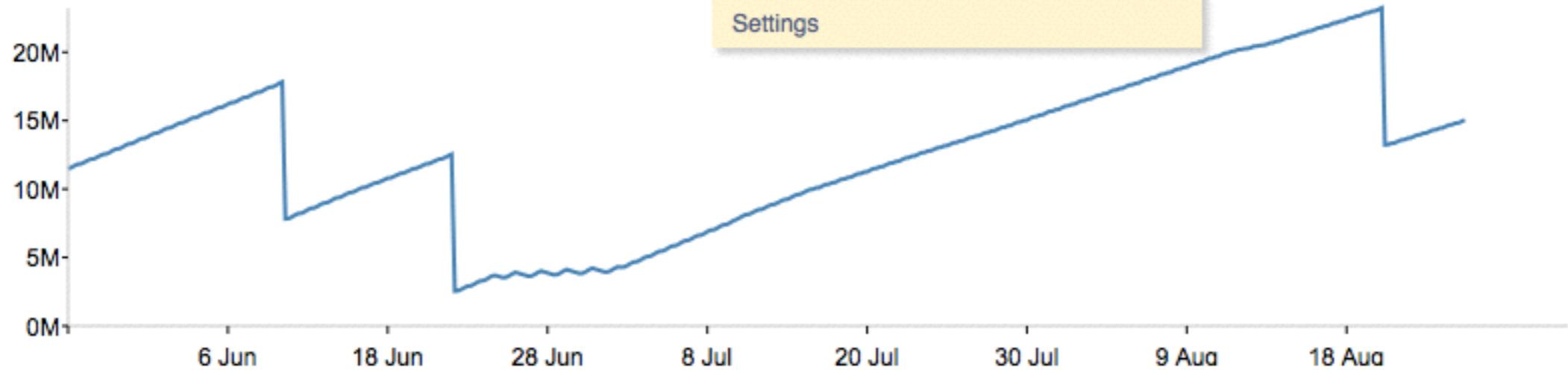
- Probes
- Measurements
- Credits
- API Keys
- Anchors
- Sponsorships
- Ambassador Probes
- Claim 1 Million Credits
- IPv6 Connectivity Test
- Quick Look
- Settings

46,963.17

🕒 14,825.52 credits / hour

📷 History | 📊 Charts & Archives | ⚙️ Transfer

## History



Download Credit Archives

Format

Download

## Current Consumption



# Exercise: Create a Measurement

## Exercise H

Refer to the exercise booklet





# Network Monitoring

## Section 14



- **Network operators use tools for monitoring network health**
  - Nagios & Icinga
- **Tools receive input from RIPE Atlas via the API**
- **Benefits:**
  - pings from 500 out of 6000+ probes around the world
  - See your network from the outside
  - Plug into your existing practices

1. **Create a RIPE Atlas ping measurement**
2. **Go to “Status Checks” URL**
3. **Add your alerts in Icinga or Nagios**



- **Status Checks work via RIPE Atlas' RESTful API**
  - [https://atlas.ripe.net/api/v1/status-checks/MEASUREMENT\\_ID/](https://atlas.ripe.net/api/v1/status-checks/MEASUREMENT_ID/)
- **You define the alert parameters, for example:**
  - **Threshold for the percentage of probes that successfully received a reply**
  - **How many most recent measurements to base it on**
- **What is the maximum packet loss acceptable**
- **Documentation:**
  - <https://atlas.ripe.net/docs/status-checks/>

- **Community of operators contributed configuration code!**
  - Making use of the built-in “check\_http” plugin
- **GitHub repo examples:**
  - [https://github.com/RIPE-Atlas-Community/ripe-atlas-community-contrib/blob/master/scripts\\_for\\_nagios\\_icinga\\_alerts](https://github.com/RIPE-Atlas-Community/ripe-atlas-community-contrib/blob/master/scripts_for_nagios_icinga_alerts)
- **Post on Icinga blog:**
  - <https://www.icinga.org/2014/03/05/monitoring-ripe-atlas-status-with-icinga-2/>



## **Exercise: Setting up “Status Checks”**

### **Exercise I**

**Refer to the exercise booklet**





# More RIPE Atlas Features

## Section 15



- <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 10 RIPE Atlas anchors
- [https://labs.ripe.net/Members/suzanne\\_taylor\\_muzzin/ripe-atlas-latest-results-api-and-parsing-library](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/>

- **RIPE Atlas:**
  - **Guaranteed probe application**
  - **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 DB objects**



# How to Host a Probe

## Section 16



- 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!**



**The End!**

**Край**

**Y Diwedd**

**النهاية**

**Соңы**

**ჟღერა**

**Fí**

**Finis**

**Ende**

**Finvezh**

**Liðugt**

**Кінець**

**Konec**

**Kraj**

**Ěnn**

**Fund**

**پایان**

**Lõpp**

**Beigas**

**Vége**

**Son**

**Край**

**An Críoch**

**הסוף**

**Fine**

**Endir**

**Sfârșit**

**Fin**

**Τέλος**

**Einde**

**Конец**

**Канец**

**Slut**

**Slutt**

**დასასრული**

**Pabaiga**

**Fim**

**Амаіа**

**Lopru**

**Tmíem**

**Koniec**