RIPE NCC Services & Activities

NaMeX Regional Meeting 2013, Paestum, Italy, 21 June 2013

Mirjam Kühne, RIPE NCC

RIPE NCC

Overview

- What is the RIPE NCC

  - Services for members and public services

- Tools and Measurements

  - IP Analyser

  - RIPE Labs

  - RIPEstat

  - RIPE Atlas

RIPE NCC

- Began operating in 1992
  - Formally established in 1997 as Membership Association under Dutch law

- One of the five Regional Internet Registries (RIRs)

- Supports the coordination of Internet operations

- Not-for-profit membership organisation

- Over 9,200 members (Local Internet Registries)

- Neutral, Impartial, Open, Transparent

The Five Regional Internet Registries

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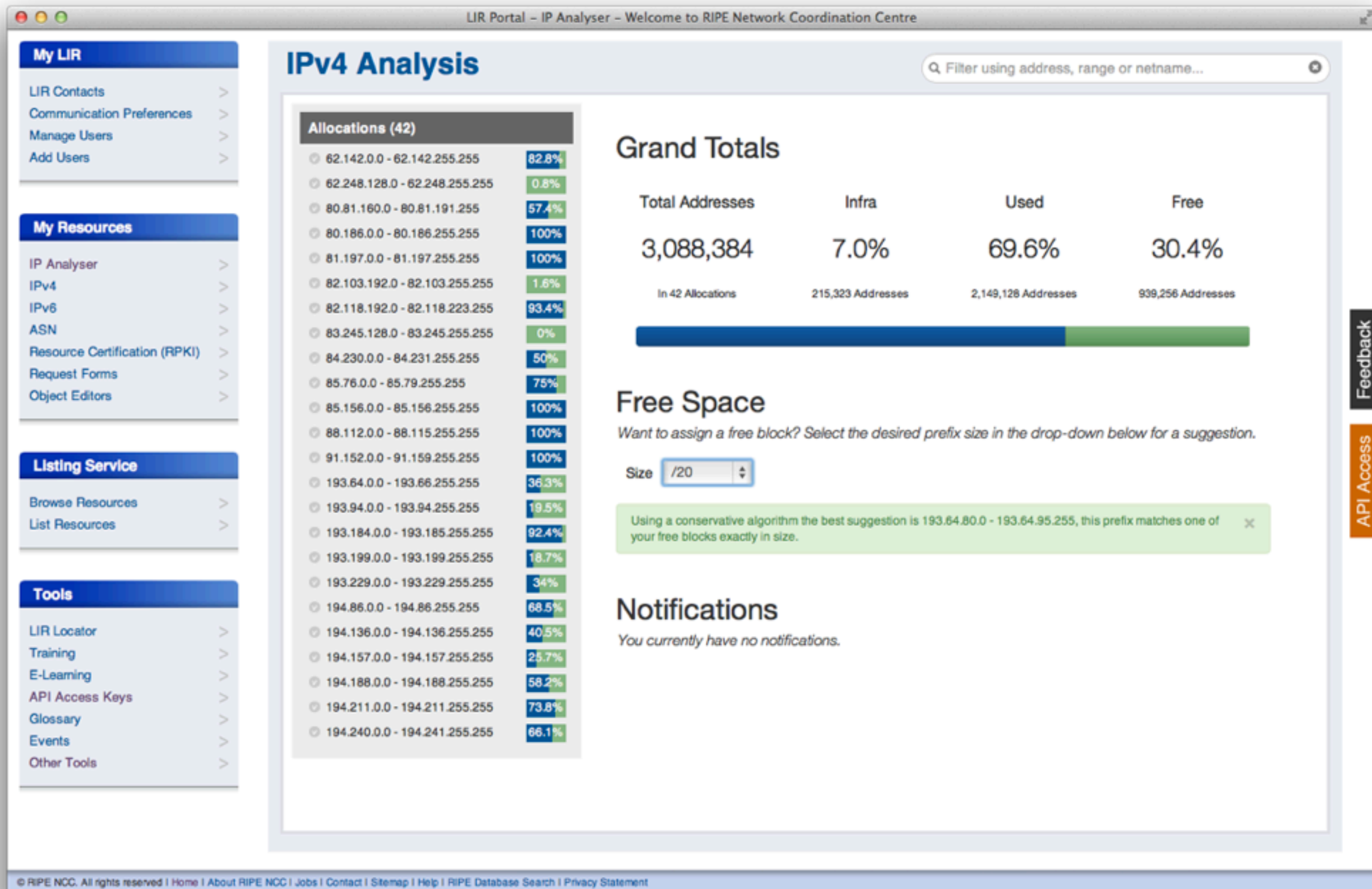# RIPE NCC Activities

- **Member Services**
  - Resource Distribution (IPv4, IPv6, ASNs)
  - Resource Certification
  - IP Analyser
  - Training (LIRs, IPv6, RIPE Database)
    - webinars

- **Public Services**
  - RIPE Database
  - Reverse DNS
  - Operating K-root server
  - Open Meetings (RIPE, SEE, MENOG, ENOG)
  - RIPE Labs
  - RIPEstat
  - RIPE Atlas

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IP Analyser - https://lirportal.ripe.net/ipanalyser/

IP Analyser

- IPv4 feature set:
  - Shows all allocations and assignments
  - Shows free space, makes suggestions for assignments
  - Notifications of invalid assignments and steps to solve

- Data presented in:
  - User-friendly web page in the LIR Portal
  - JSON and plain text output though an API

- https://lirportal.ripe.net/ipanalyser/

RIPE Labs

What is RIPE Labs?

- It's a website - but more importantly, it is a platform and a tool **for the community**

- You can:
  - Test and evaluate new tools and prototypes
  - Contribute new ideas and research results
  - Provide feedback and discuss with others

labs.ripe.net

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RIPE Labs Homepage

Statistics Dashboard

RIPE NCC Roadmap

Tag Cloud
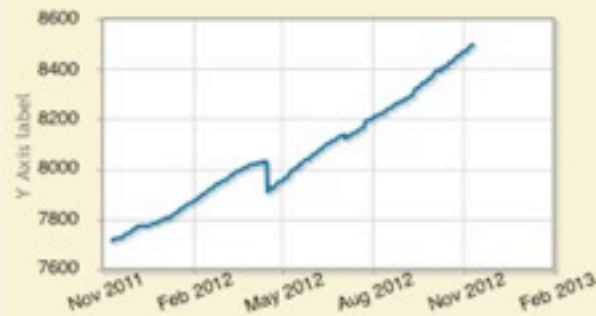
List of Articles

RIPE Labs Content

tagcloud

allocation api ases atlas
certification country cpe
database
datarepository dns
dnssec geolocation
ipv4 ipv6 ipv6day
ipv6launch ixp k-root lirs
measurements
membership pi policy
reputation rex ripe db ripe
meetings ripe ncc ripestat
root-servers routing
rpsl security statistics
syria tools

- Statistics and measurements
  - Routing, DNS, IPv4, IPv6, ...
- RIPE Database API and tools
- RIPE Atlas
- Tools (RIPEstat, Abuse Finder)
- And a lot more...
- Also external contributions

Statistics Dashboard

- All stats on one page

- Automatically updated

- Each graph is tagged

  – Easier to navigate

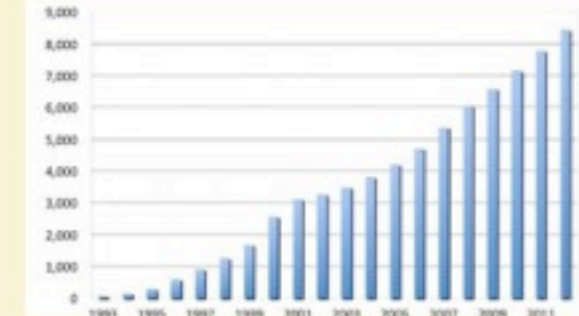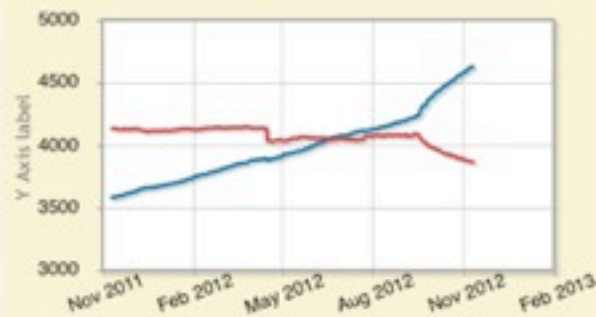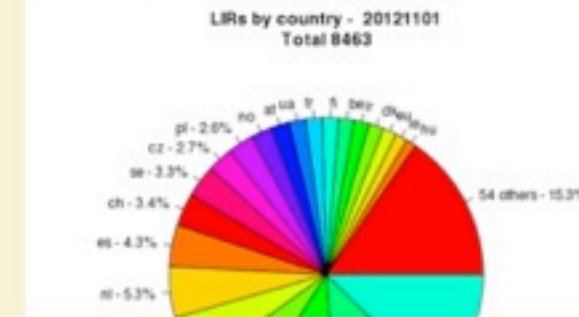**labs.ripe.net/statistics**

IPv6 RIPEness

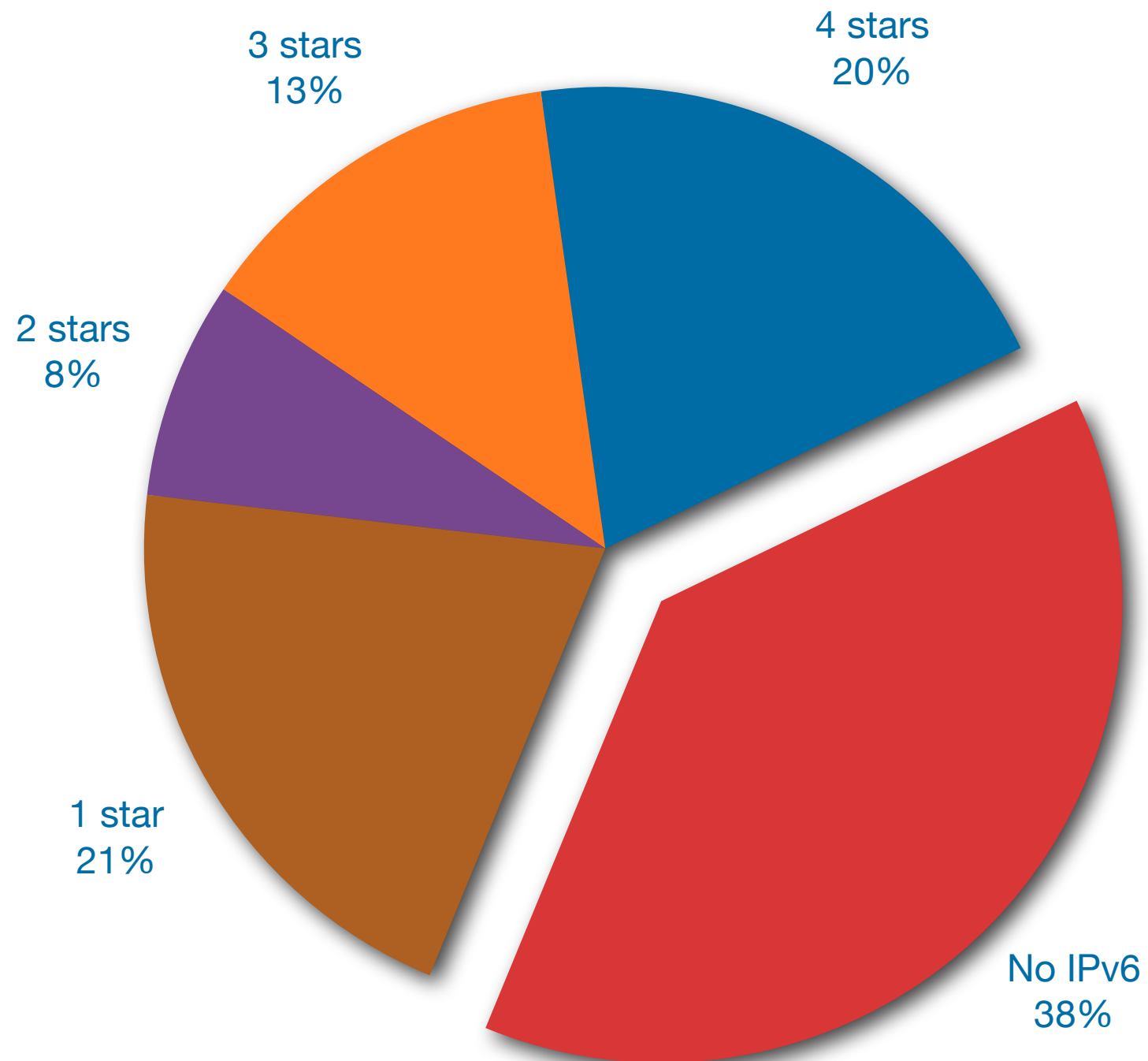- Rating system, members can earn "stars"

  – First star when receiving an IPv6 allocation

  – Additional stars when

    – It is announced on the Internet

    – A **route6** object is created

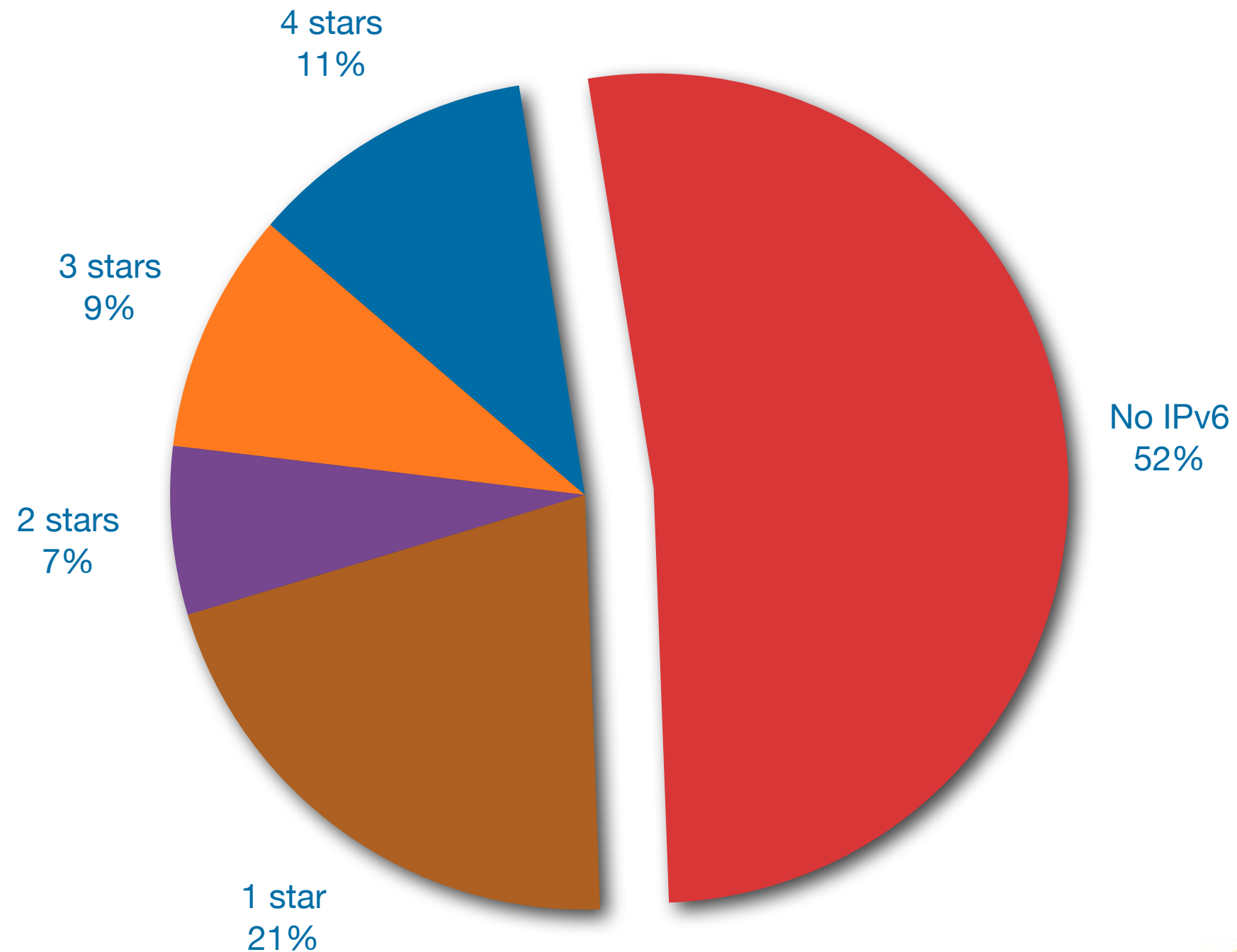   – Reverse DNS is set up

ipv6ripeness.ripe.net

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IPv6 RIPEness (9,232 LIRs)

● 1 star ● 2 stars ● 3 stars ● 4 stars ● No IPv6

3 stars
13%

4 stars
20%

2 stars
8%

1 star
21%

No IPv6
38%

IPv6 RIPEness in Italy (564 LIRs)

● 1 star   ● 2 stars   ● 3 stars   ● 4 stars   ● No IPv6

4 stars
11%

3 stars
9%

2 stars
7%

1 star
21%

No IPv6
52%

IPv6 RIPEness Deployment - Fifth Star

- LIRs providing content over IPv6
  - Based on Alexa 1M list

- LIRs providing IPv6 access to end users
  - Based on APNIC's Flash-based Google ads

All LIRs offering services in Austria

Access (last 6 months)	Access (last month)	Content	LIR
17.7 %	17.9 %	16.5 %	ACONET
37.5 %	100.0 %		APA - Austria Presse Agentur reg. Gen.m.b.H.
7.2 %		5.1 %	ASCUS Telecom GmbH
28.6 %	33.3 %		Citycom Telekommunikation GmbH
25.0 %			Elektrizitatswerk Wels AG
2.9 %			Infotech EDV-Systeme GmbH
100.0 %			Nessus GmbH
100.0 %			SelfNet Internet Ges.m.b.H.
15.1 %		4.0 %	Tele2 Telecommunication GmbH

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ASNs Announcing IPv6 Prefixes
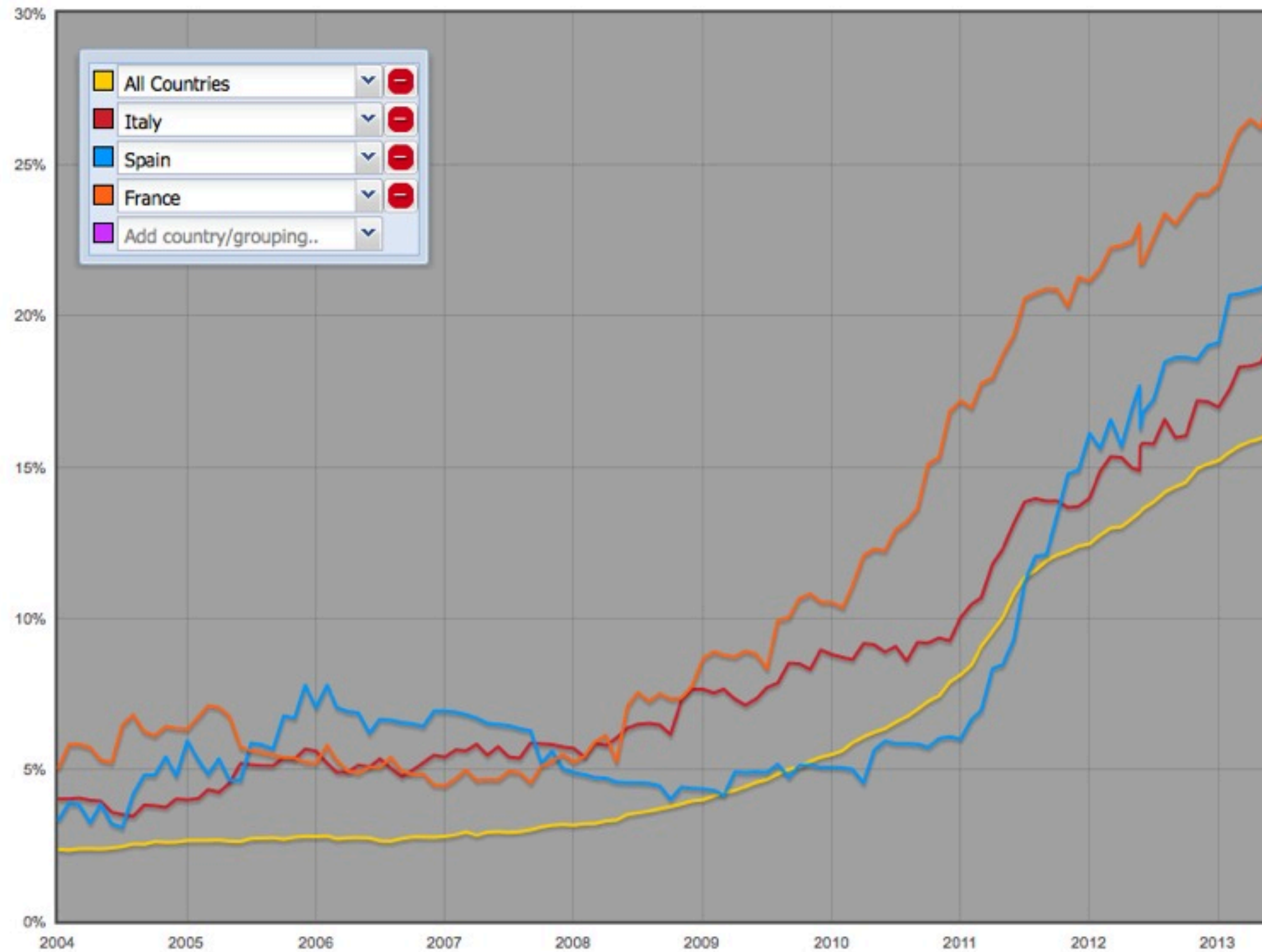
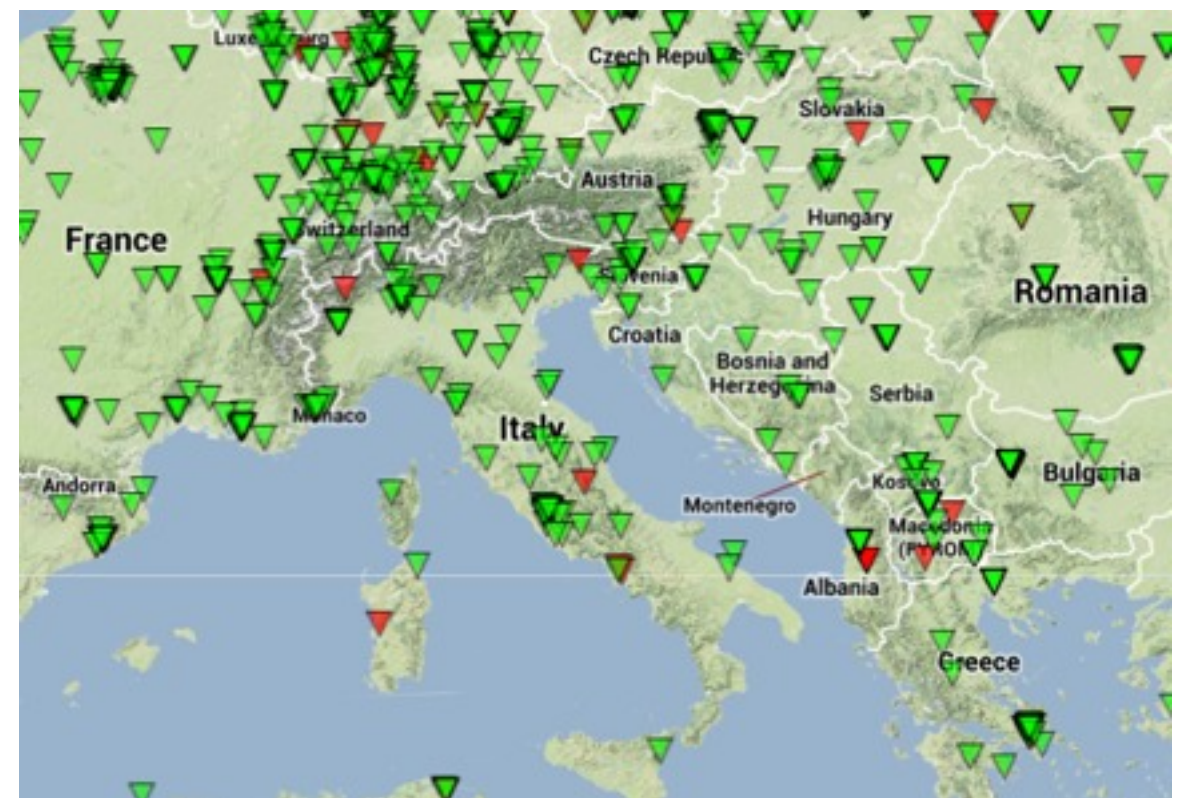Tuesday, June 18, 13

RIPE Atlas

RIPE Atlas - Active Measurements Network

- Over 3,000 measurement nodes
  - Probes run different measurements
    - ping, traceroute, SSL, DNS
  - Define your own measurements
  - Data publicly available
  - Measurement code public
  - Various APIs available

labs.ripe.net/atlas

RIPE Atlas Use Cases

- Effects storm Sandy had on parts of Internet

  - https://labs.ripe.net/Members/mirjam/sandy-2012

Name server instance	Nr. of probes connecting to instance	Percentage
dns.th2.nic.fr	173	36%
dns.fra.nic.fr	173	36%
dns.lon.nic.fr	47	10%
dns.lyn2.nic.fr	29	6%
dns.lyn1.nic.fr	25	5%
dns.bru.nic.fr	19	4%
dns.ix1.nic.fr	18	4%

- Find most popular instances of DNS anycast servers

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RIPEstat

RIPEstat - Toolbox

- One-stop shop
  - All data in one place
  - Routing, IP, geoloc, Black Lists, etc.
  - Graphical interface
  - Nearly 40 widgets & growing
- Updates on RIPE Labs
  - User feedback important!

stat.ripe.net

New BGPlay Integrated in RIPEstat
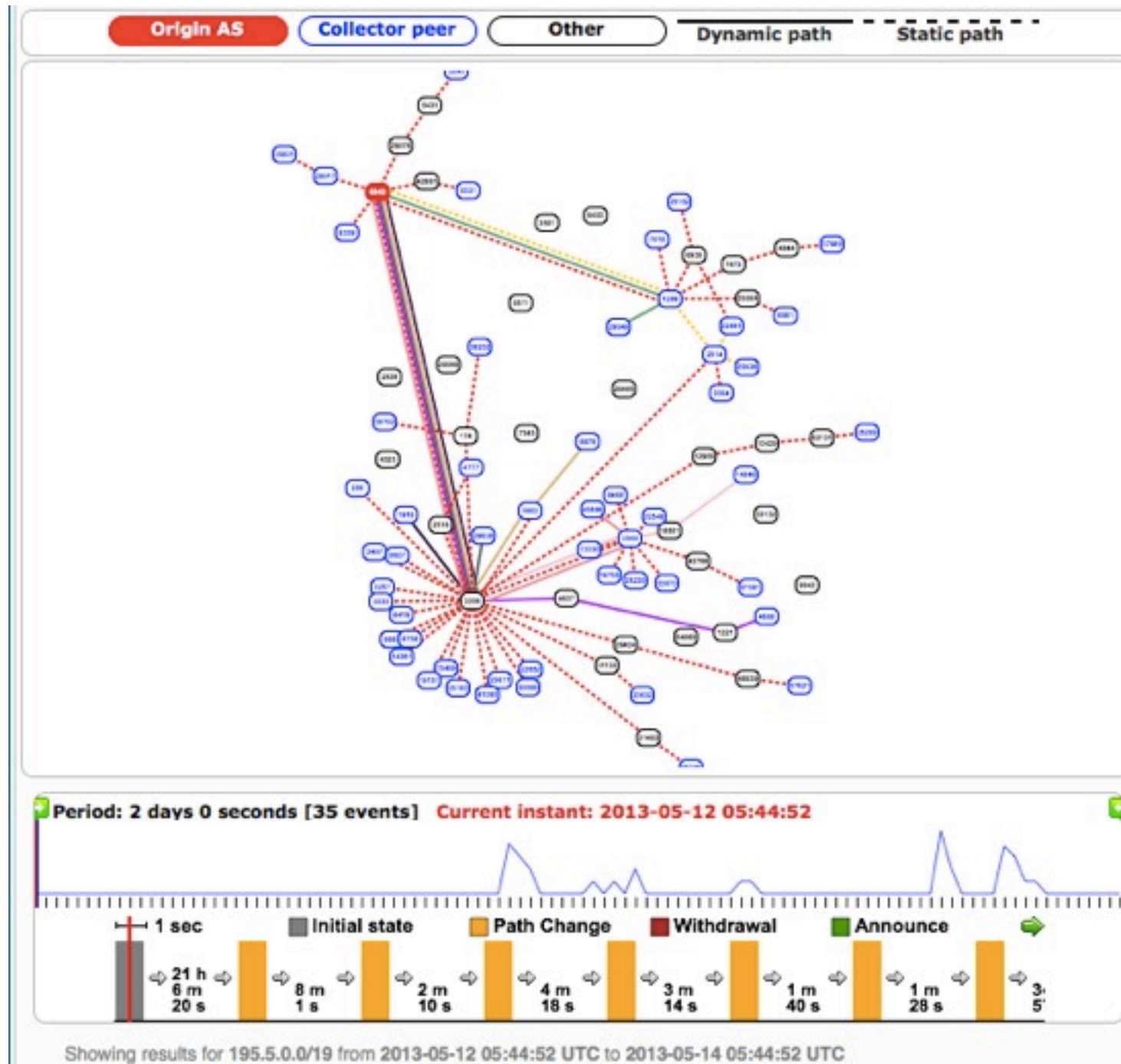
- Popular demand
- Improved visualisation
- Collaboration with Roma Tre University

Country Routing Statistics

- IPv4, IPv6, ASNs per country over time

  stat.ripe.net/widget/country-routing-stats

- Compare with another country

  stat.ripe.net/special/country-comparison

RIPE NCC Survey 2013

- RIPE NCC will use results to asses and evaluate our services and activities

- Open to anybody!

- Takes 15 - 20 minutes

- Please fill in the survey for a chance win an iPad mini!

  ripe.net/survey2013

- Next RIPE Meeting: 14 - 18 October in Athens

Questions?