

# RIPE NCC Tools & Analyses For Policy-Makers

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# Interactive Statistics Prototypes

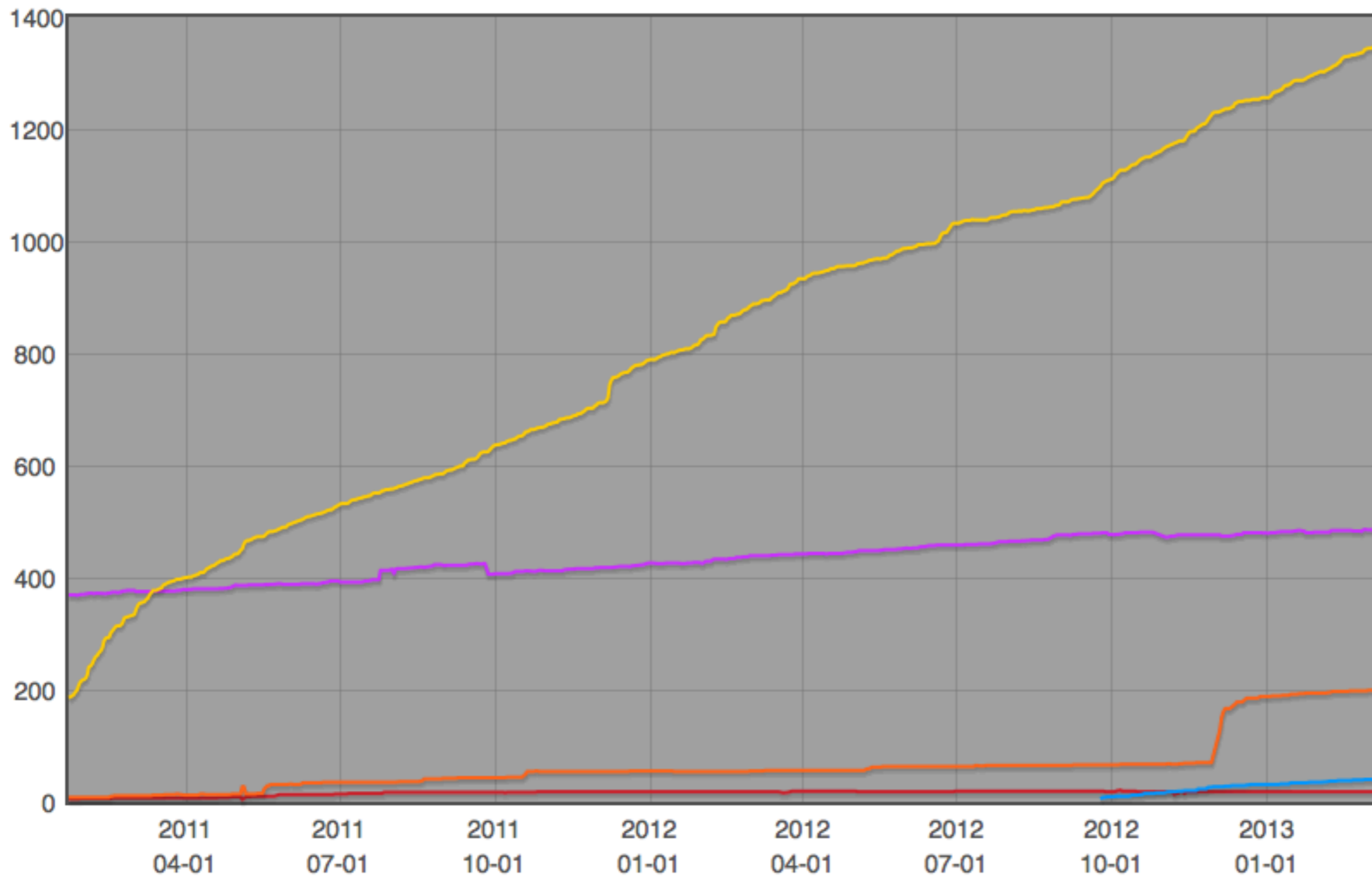
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# Resource Certification Statistics

Number of Certificates ▾

AfrinIC  APNIC  ARIN  LACNIC  RIPE NCC

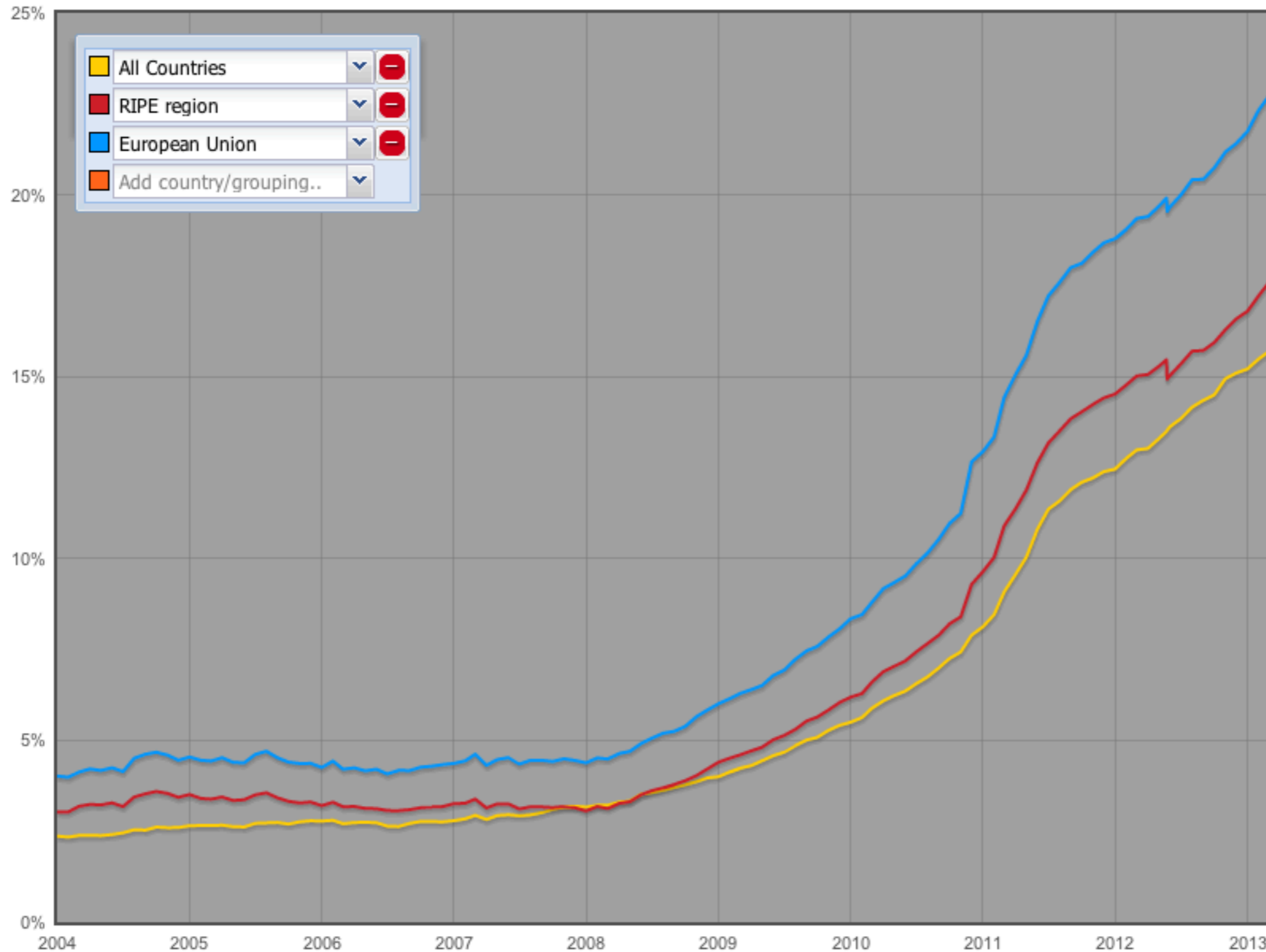
This graph shows the total number of resource certificates created under the RIR Trust Anchor. One certificate is generated per LIR, listing all eligible Internet number resources



# IPv6 Enabled Networks

permalink: [http://v6asns.ripe.net/v/6?s=\\_ALL;s=\\_RIR\\_RIPE\\_NCC;s=\\_EU](http://v6asns.ripe.net/v/6?s=_ALL;s=_RIR_RIPE_NCC;s=_EU)

This graph shows the percentage of networks (ASes) that announce an IPv6 prefix for a specified list of countries or groups of countries



10ff 198.  
:bf98:3080.  
98.51.100.14.  
:cb00:13be20  
:19f2:80::1 198  
d:2209:bc:80r  
:db8::109b  
08 51.

# RIPE Labs

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# What is RIPE Labs?




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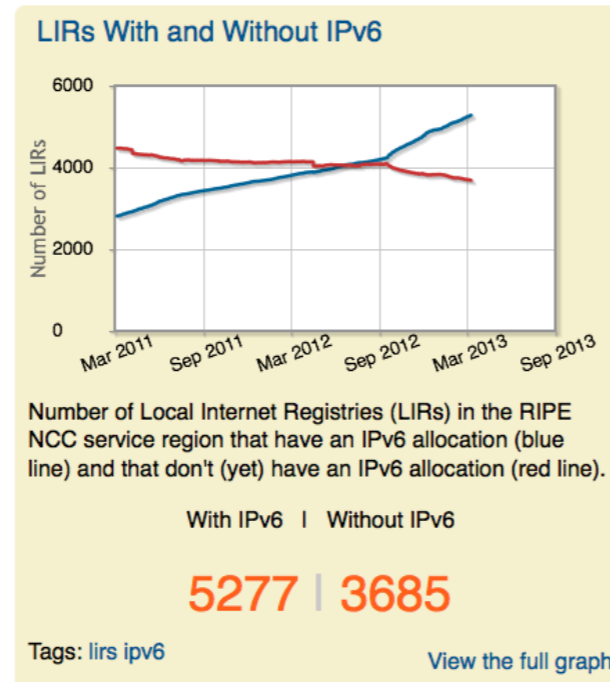
- It's a website, but more importantly:
  - It is a platform and a tool **for the community**
- You can:
  - Test and evaluate new tools and prototypes
  - Contribute new ideas and research results
  - Provide feedback and discuss with others

<https://labs.ripe.net/>

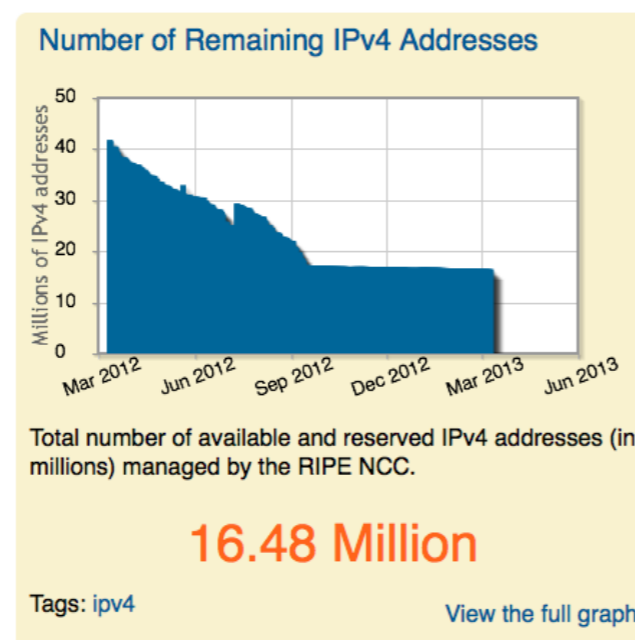
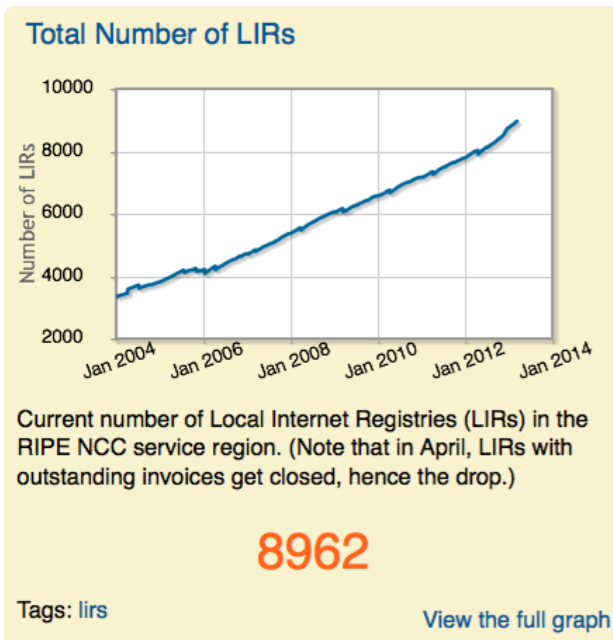
# New Statistics Dashboard

**Statistics**

 <b>8962</b> Number of LIRs	 <b>16.48 Million</b> IPv4 Allocation Pool
 <b>5277</b> LIRs with IPv6	<a href="#">View more statistics</a>



- Key Internet statistics on a single page
- Automatically updated
- Each graph is tagged
  - Easy to navigate

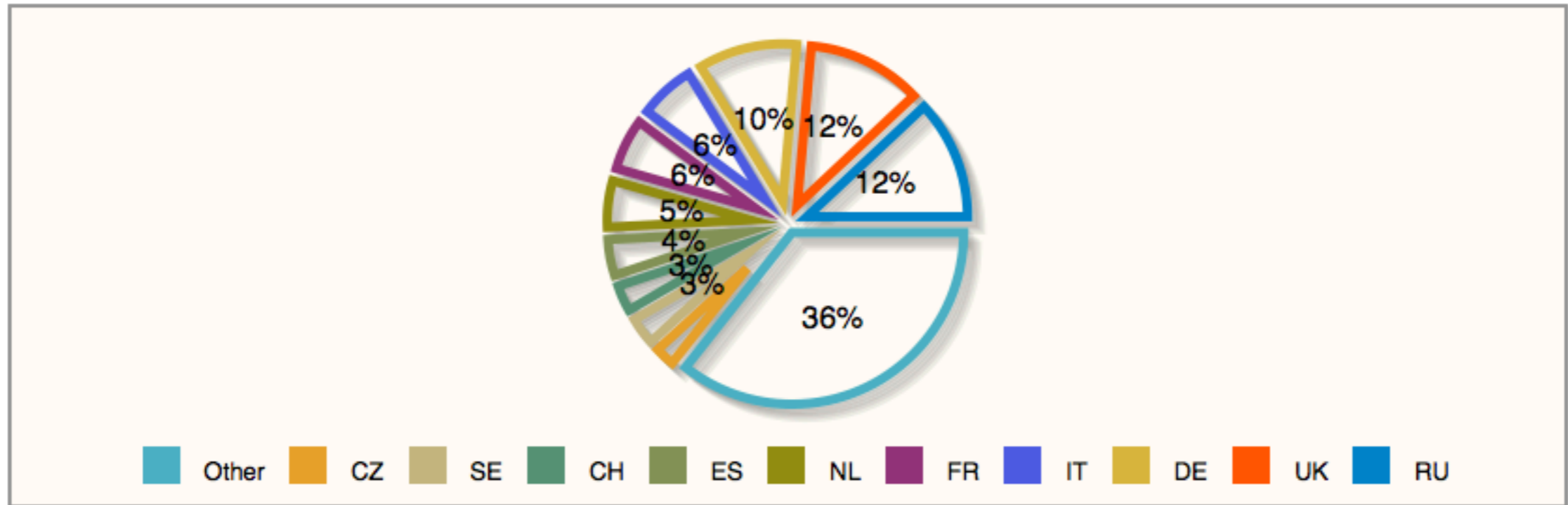


<http://labs.ripe.net/statistics>



# Membership per Country

## RIPE NCC Membership by Country - Top Ten



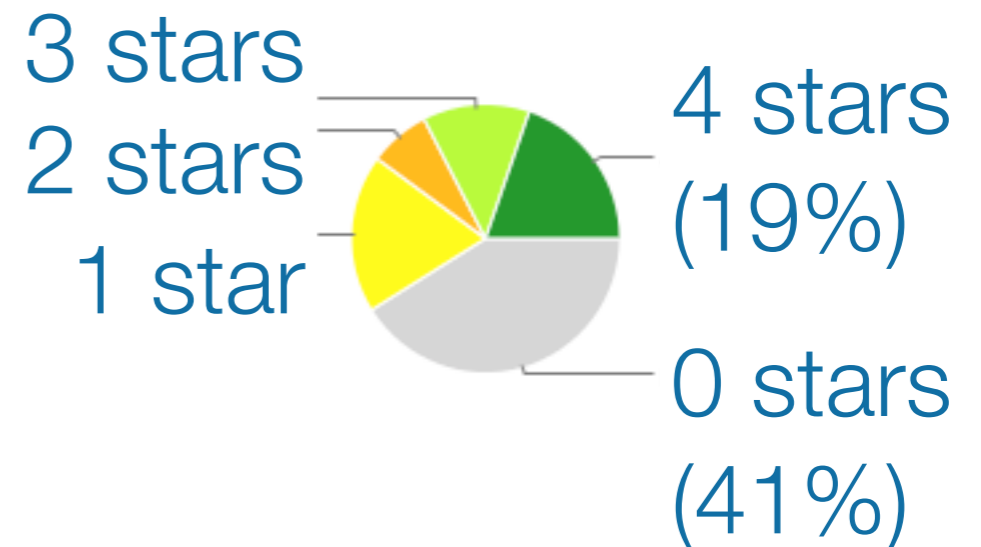
This graph shows the distribution of the RIPE NCC membership by country. It is updated each month. The RIPE NCC service region covers 76 countries in total.

# IPv6 RIPEness

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- IPv6 RIPEness: Four indicators (“stars”) of IPv6 readiness of an LIR in the RIPE NCC region
- Upcoming fifth star: measures actual deployment

2012-03-17



## RIPE stat

Your network: **AS3333, 193.0.0.0/21**

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

Status,  
Statistics,  
Stat!

# RIPEstat

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- A “one stop shop” for all you want to know about ASes or IP prefixes (and more)
- A service built to explain various aspects of these resources:

Routing  
DNS  
Registration

Anti-abuse  
Geographical  
Activity/Measurements

- Data and visualisations are both available

**<https://stat.ripe.net/>**

# Live Demo

### Geoloc (europa.eu)

Showing results for europa.eu

source data embed code permalink info

### DNS Chain (europa.eu)

Showing results for europa.eu as of 2013-03-12 14:29:00 UTC

source data embed code permalink info

### Forward DNS (europa.eu)

Showing results for europa.eu as of 2013-03-12 15:27:00 UTC

resolved via: 193.0.19.6, 193.0.19.101, 193.0.19.102

authoritative nameservers: ns2lux.europa.eu, auth00.ns.be.uu.net, ns2eu.bt.net, ns1lux.europa.eu, tcbru22.cec.eu.int, ns1bru.europa.eu, ns2bru.europa.eu, ns1.bt.net, tcbru25.cec.eu.int, auth50.ns.be.uu.net, tclux17.cec.eu.int.

source data embed code permalink info

### Country Routing Statistics (Egypt) BETA

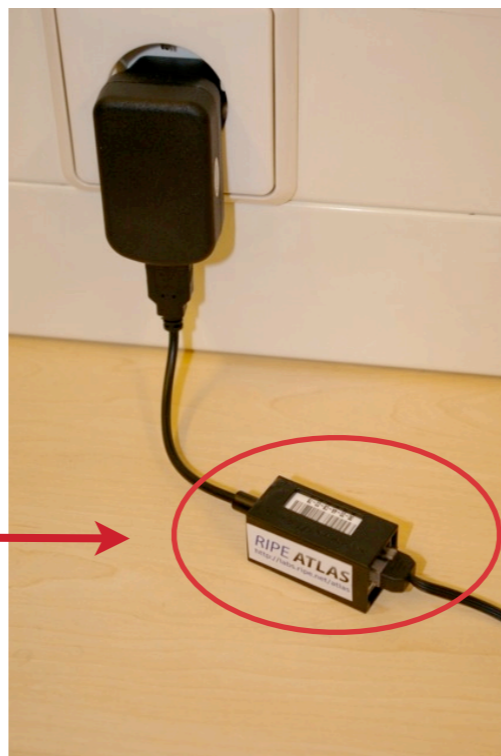
Showing results for Egypt from 2004-01-01 01:00:00 UTC to 2013-03-10 11:20:00 UTC

source data embed code permalink info

10ff 198.  
:bf98:3080.  
98.51.100.14.  
:cb00:13be20  
:19f2:80::1 198  
d:2209:bc:80r  
:db8::109b  
08 51.

# RIPE Atlas

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# RIPE Atlas

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- Measuring the Internet
  - For the community <https://atlas.ripe.net/>
  - By the community
- Instead of building small, individual, private infrastructures, build a HUGE common infrastructure that serves both private and community goals

# RIPE Atlas

- 2700+ hardware devices (“probes”) up-and-running





# RIPE Atlas Maps - DNS Root Server

Key (minimum response time and protocol): ?  $\leq 10\text{ms}$  ?  $\leq 20\text{ms}$  ?  $\leq 30\text{ms}$  ?  $\leq 40\text{ms}$  ?  $\leq 50\text{ms}$  ?  $\leq 100\text{ms}$  ?  $\leq 200\text{ms}$  ?  $\leq 300\text{ms}$  ?  $\leq 500\text{ms}$  ?  
>500ms (unreachable) ? = IPv4 ? = IPv6



# RIPE Atlas Maps - DNS Root Server

Key (minimum response time and protocol):

- ? ≤10ms
- ? ≤20ms
- ? ≤30ms
- ? ≤40ms
- ? ≤50ms
- ? ≤100ms
- ? ≤200ms
- ? ≤300ms
- ? ≤500ms
- ? >500ms
- (unreachable)
- = IPv4
- = IPv6

## Response time to DNS Root Server

### Positions of DNS Root Servers



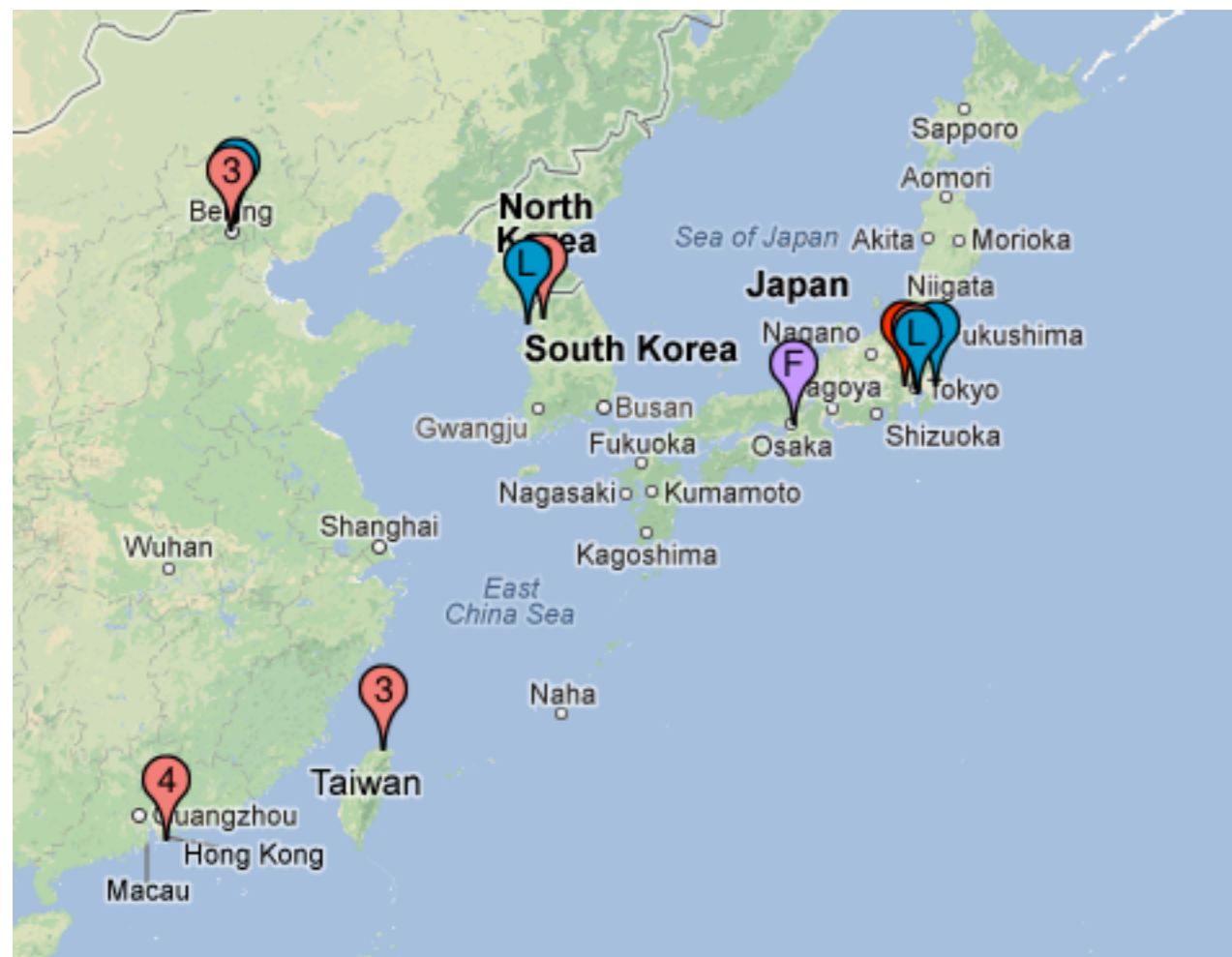
# RIPE Atlas Maps - DNS Root Server

Key (minimum response time and protocol):

- ? ≤10ms
- ? ≤20ms
- ? ≤30ms
- ? ≤40ms
- ? ≤50ms
- ? ≤100ms
- ? ≤200ms
- ? ≤300ms
- ? ≤500ms
- ? >500ms
- (unreachable)
- = IPv4
- = IPv6

## Response time to DNS Root Server

## Positions of DNS Root Servers

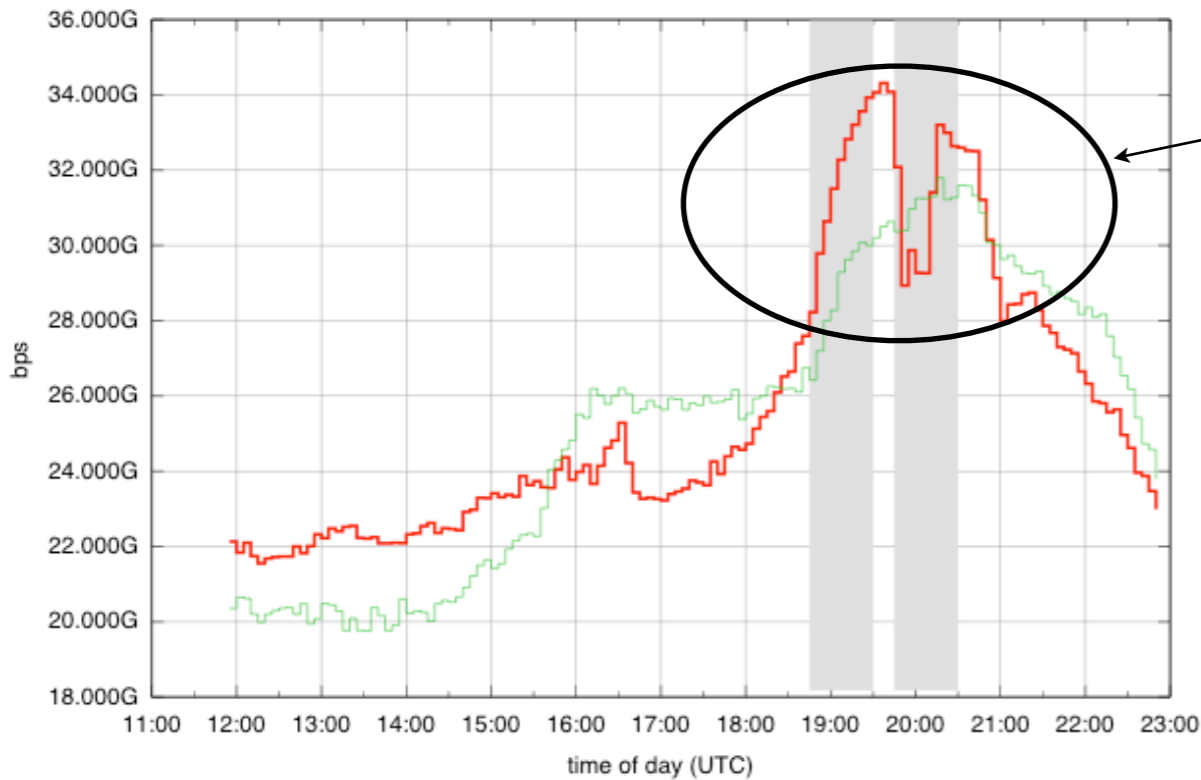


# Events

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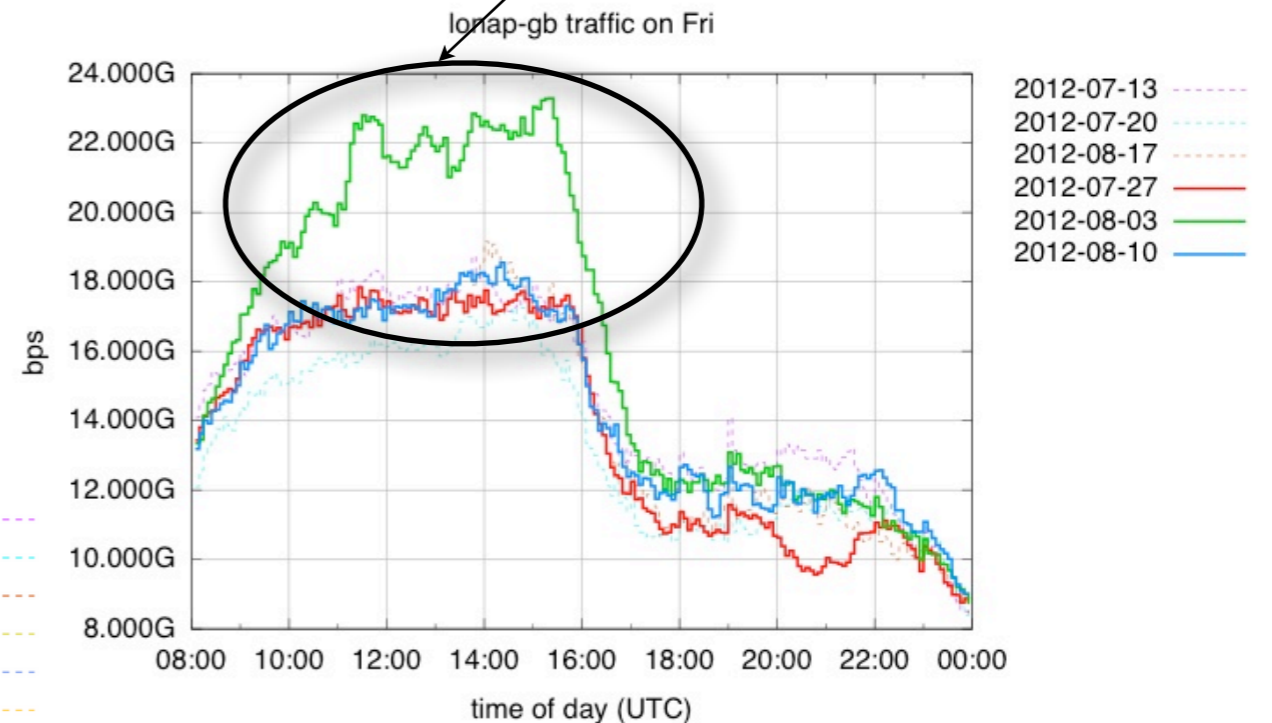
# IXP Traffic Levels During Major Events

inex-ie traffic on 2012-06-18

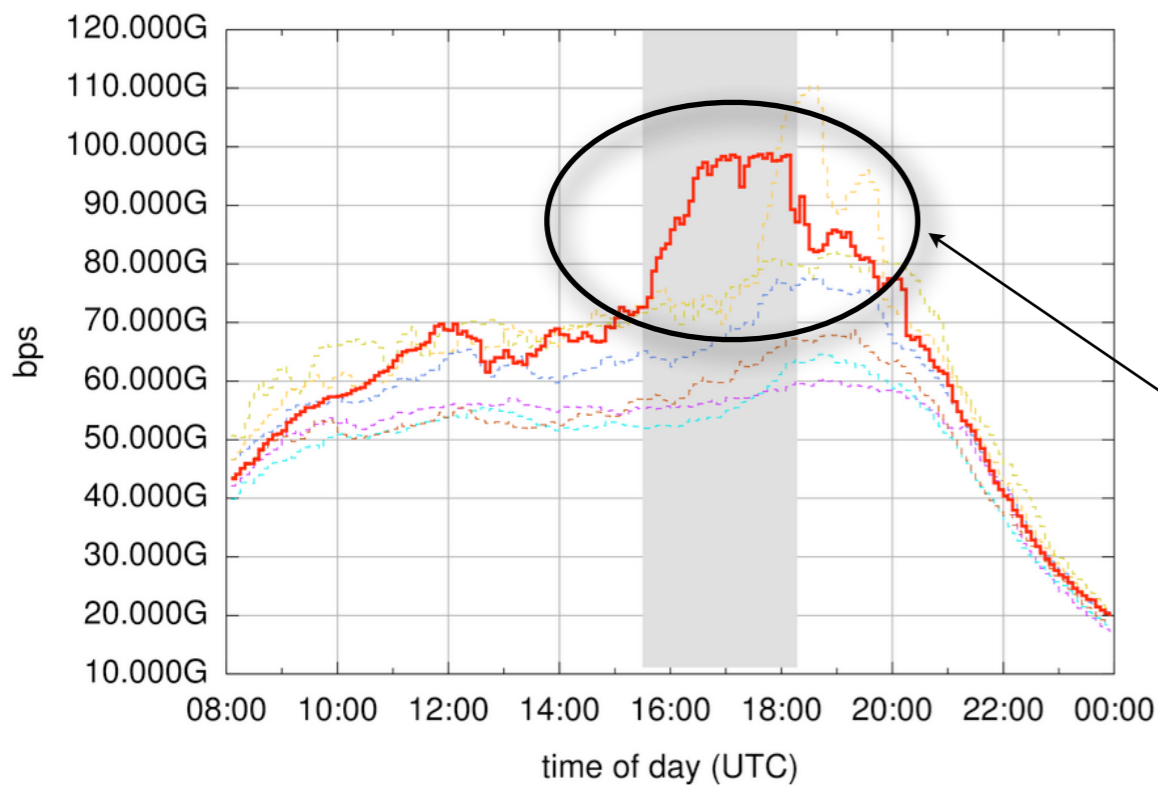


**INEX during Euro Championship  
Ireland vs. Italy**

**LONAP during Olympics  
(office hours)**



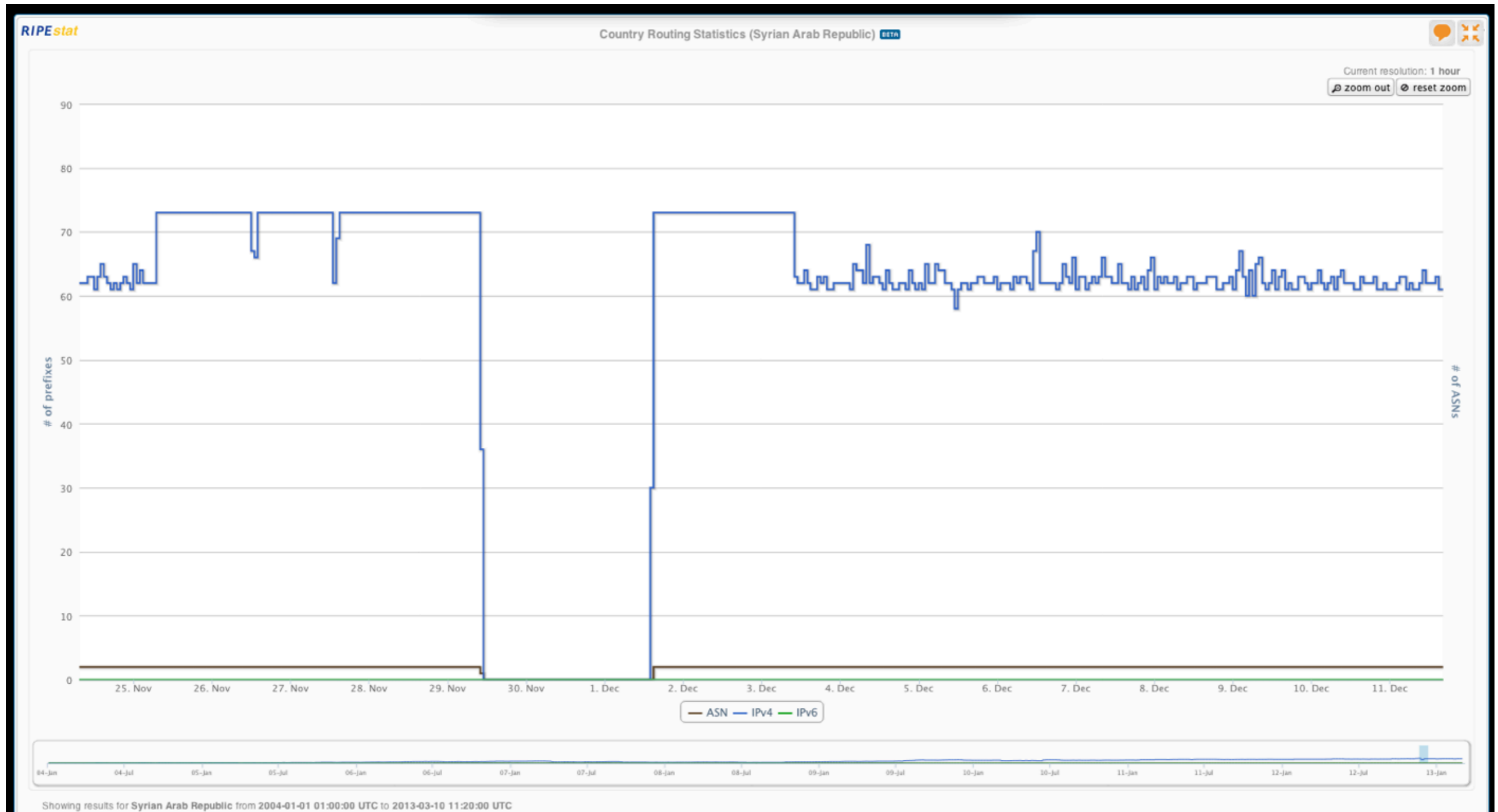
vix-at traffic on 2012-10-14 (solid line) vs. previous Sundays (dashed lines)



<https://labs.ripe.net/search?Subject%3Alist=ixp>

**VIX during Felix Baumgartner's  
Skydive**

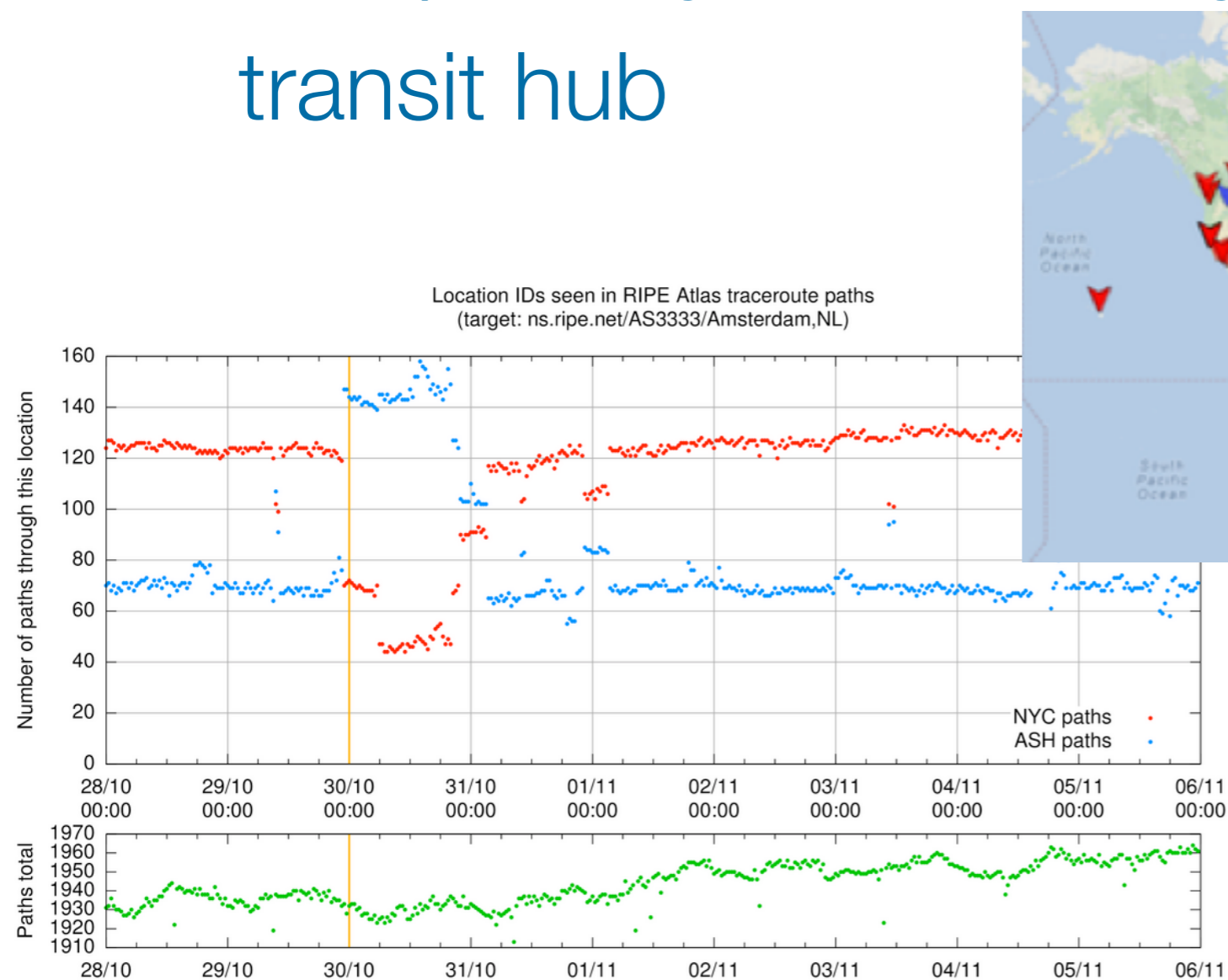
# Internet Outage in Syria - RIPEstat



[https://stat.ripe.net/SY#activity\\_atlas-probes.resource=SY](https://stat.ripe.net/SY#activity_atlas-probes.resource=SY)

# Measuring Hurricane Sandy with RIPE Atlas

- Most RIPE Atlas probes in affected area unavailable during hurricane Sandy
- Traffic partially shifted away from NYC as a transit hub



<https://labs.ripe.net/sandy-2012>

# What else?

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- What tools and analyses would you want from the RIPE NCC?



Questions?

