



IPv6 Services and Activities at the RIPE NCC

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Topics

- IPv6ActNow
- IPv4 and IPv6 Allocation Statistics
- IPv6 on RIPE Labs
- IPv6 Training Courses
- IPv6 Roadshow



www.IPv6ActNow.org

IPv6

ACT NOW

Search

Stay updated on our news

Your IP: 2001:410:240:13:21b:63ff:fe4:4954

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How To Act Now

Learn more about what you can do

Small Business

Everything a small business needs to know about IPv6 adoption

Enterprise

Deploying IPv6 within an enterprise

ISP

Implementing IPv6 as an ISP

Government

Information about IPv6 planning for government organisations

Statistics



Interviews



What is IPv6?

IPv6 is the new way the Internet is numbered.

Click here to find out more

What about IPv4?

IPv4 numbers are running out.

How long have we got left?

Forums

IPv6 Act Now Forums.

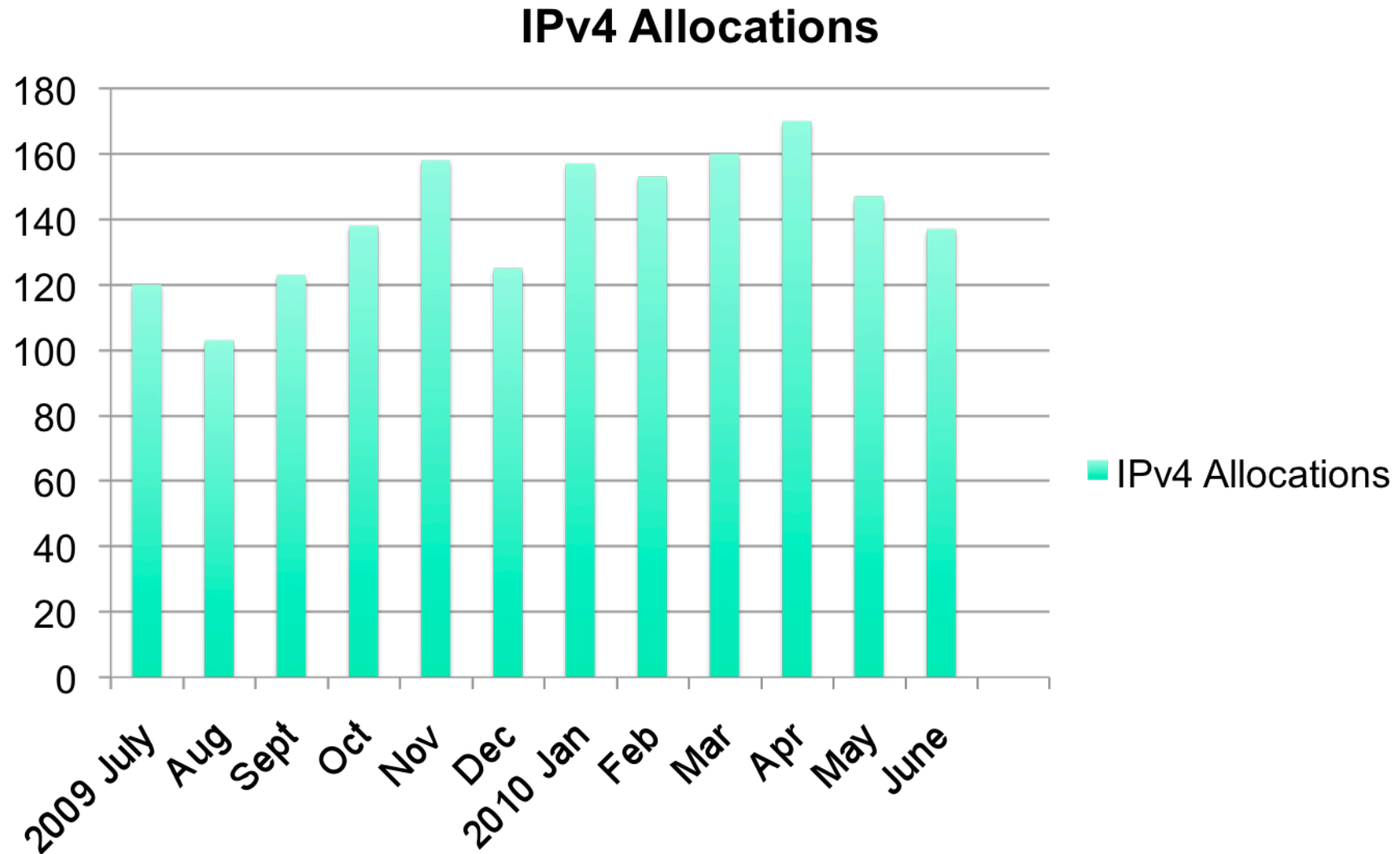
See what people are saying!

This website is operated by the RIPE NCC.

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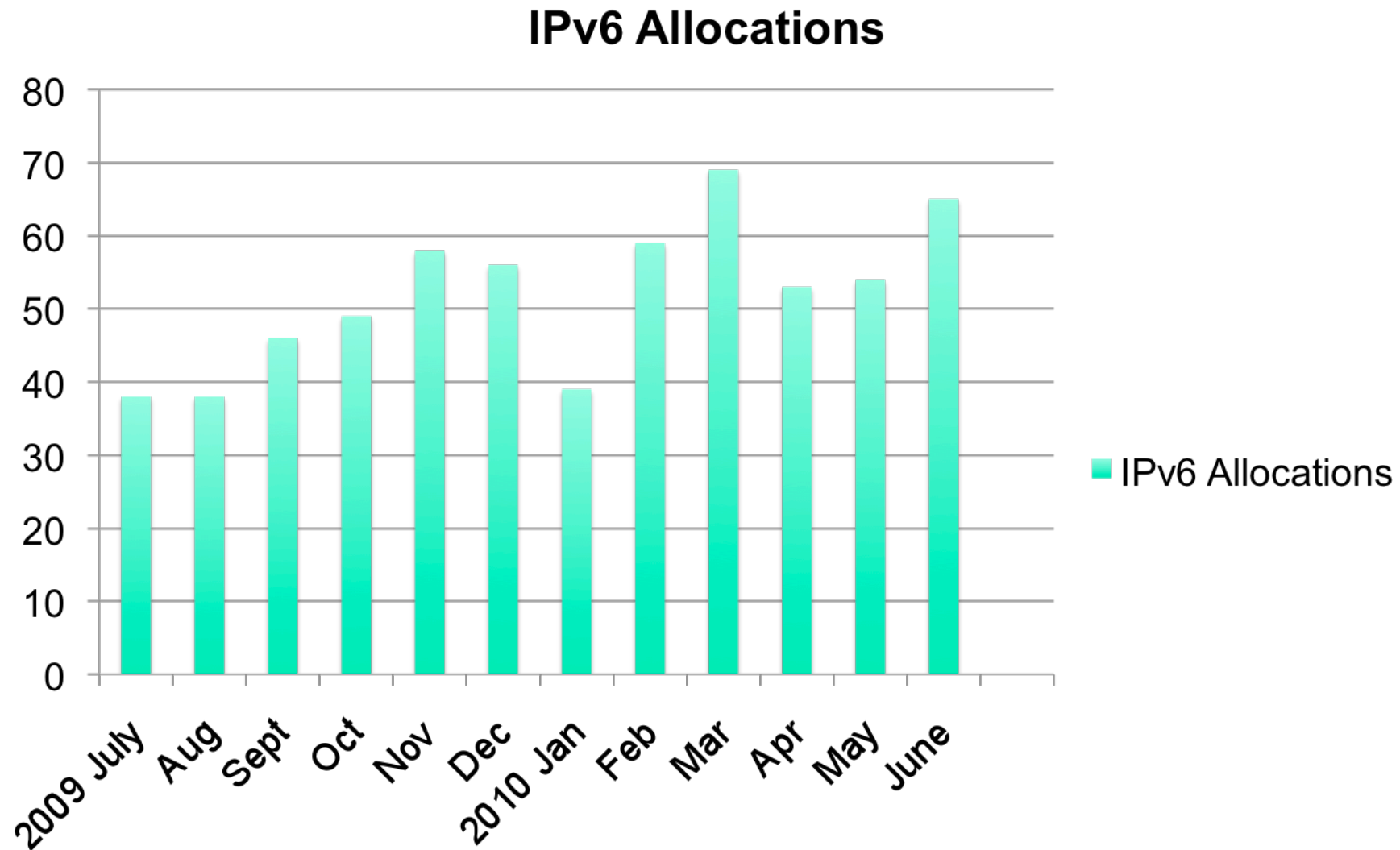


IPv4 Allocations in One Year



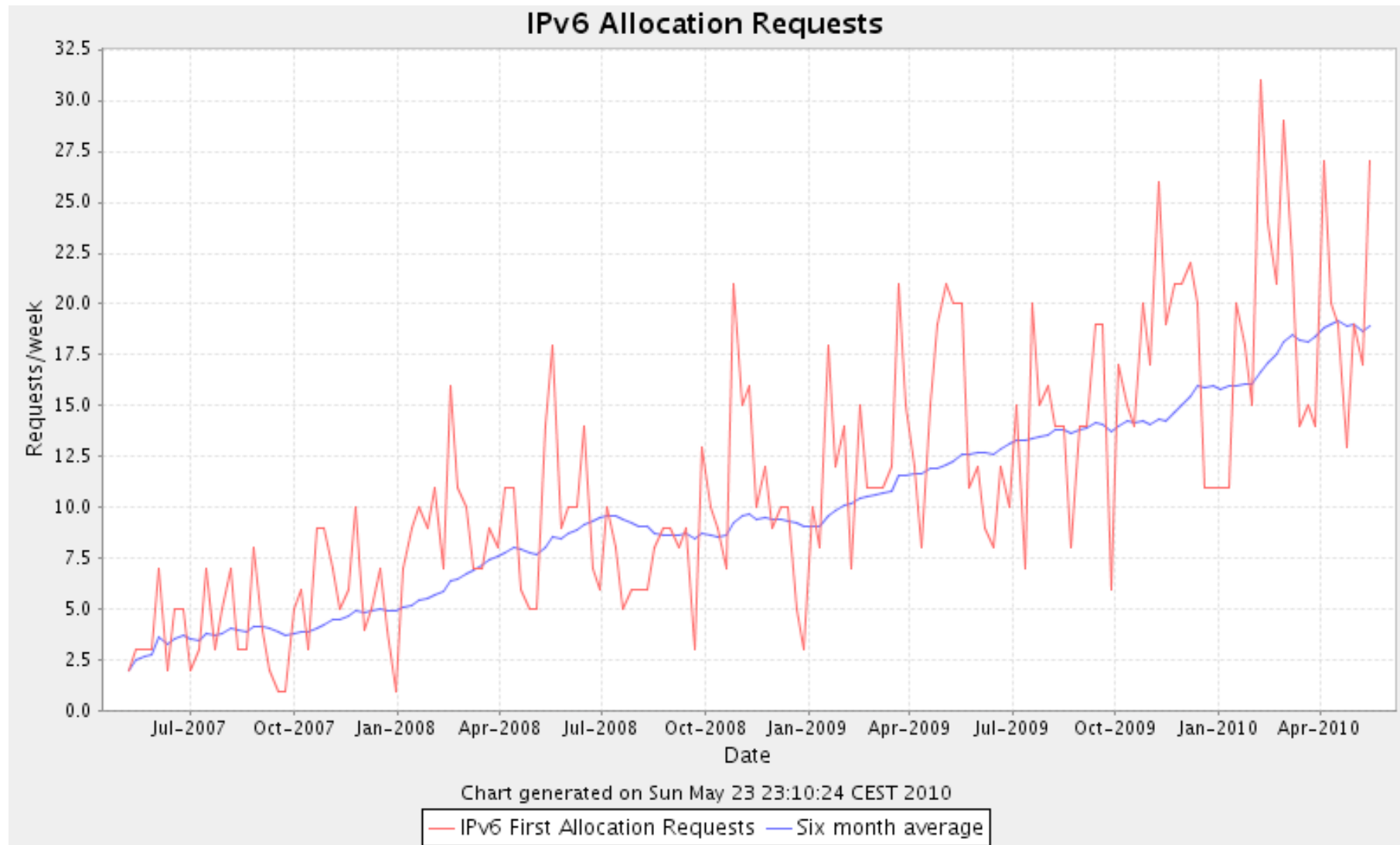


IPv6 Allocations in One Year





IPv6 Requests Received





RIPE Labs

- It is a web site, but more importantly:
 - A platform and a tool for the community
- You can
 - Test and evaluate new tools and prototypes
 - Contribute new ideas and research results
 - Discover and discuss in forums and blogs

<http://labs.ripe.net>



IPv6 on RIPE Labs

IPv6 Measurements Compilation

Measuring IPv6 at Web Clients and Caching Resolvers

Untunneling IPv6

IPv6 Ripeness

IPv6 CPE Survey



A Compilation of IPv6 Measurements

- List of IPv6 measurements and tools from various sources with a short description and links to the tools and results
- Please let us know what type of measurements would be helpful for your operations

<http://labs.ripe.net/content/ipv6-measurement-compilation>



IPv6 at Web Clients & Resolvers

- When people connect to servers we measure

- IPv4 capability
- IPv6 capability
- IPv4/IPv6 preference

	labs	www
number of measurements	768	8176
web client IPv6 preference	7.2%	1.4%
web client IPv6 capability	9.2%	3.5%
resolver IPv6 capability	11.0%	5.0%

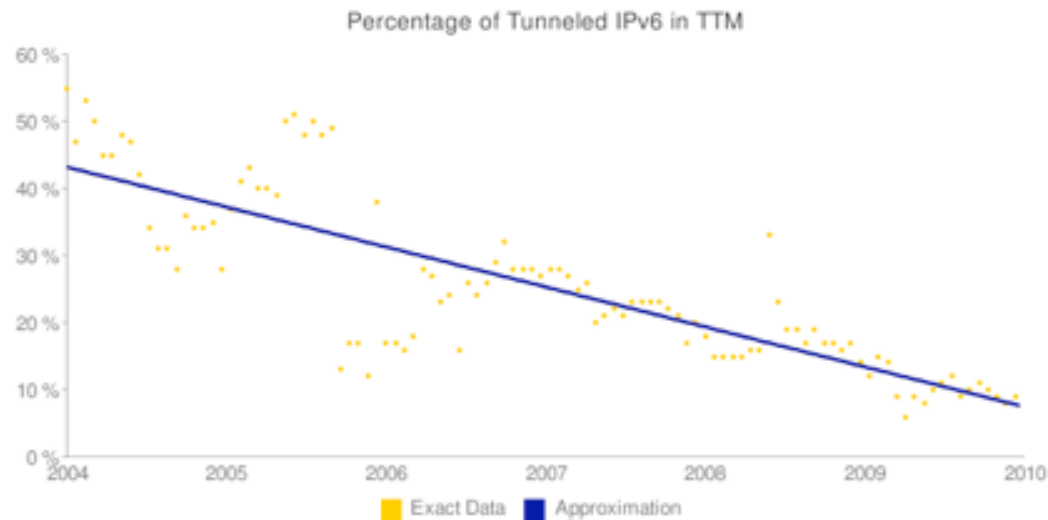
- More resolvers (4.9%) than clients (1.2%) have native IPv6 connectivity
 - Clients will increase over time
 - We will continue measurements

<http://labs.ripe.net/content/measuring-ipv6-web-clients-and-caching-resolvers-part-1>



Untunneling IPv6

- Using the Test Traffic Measurements Network to measure IPv6 native vs. IPv6 tunneled traffic
- Amount of tunneled traffic is decreasing

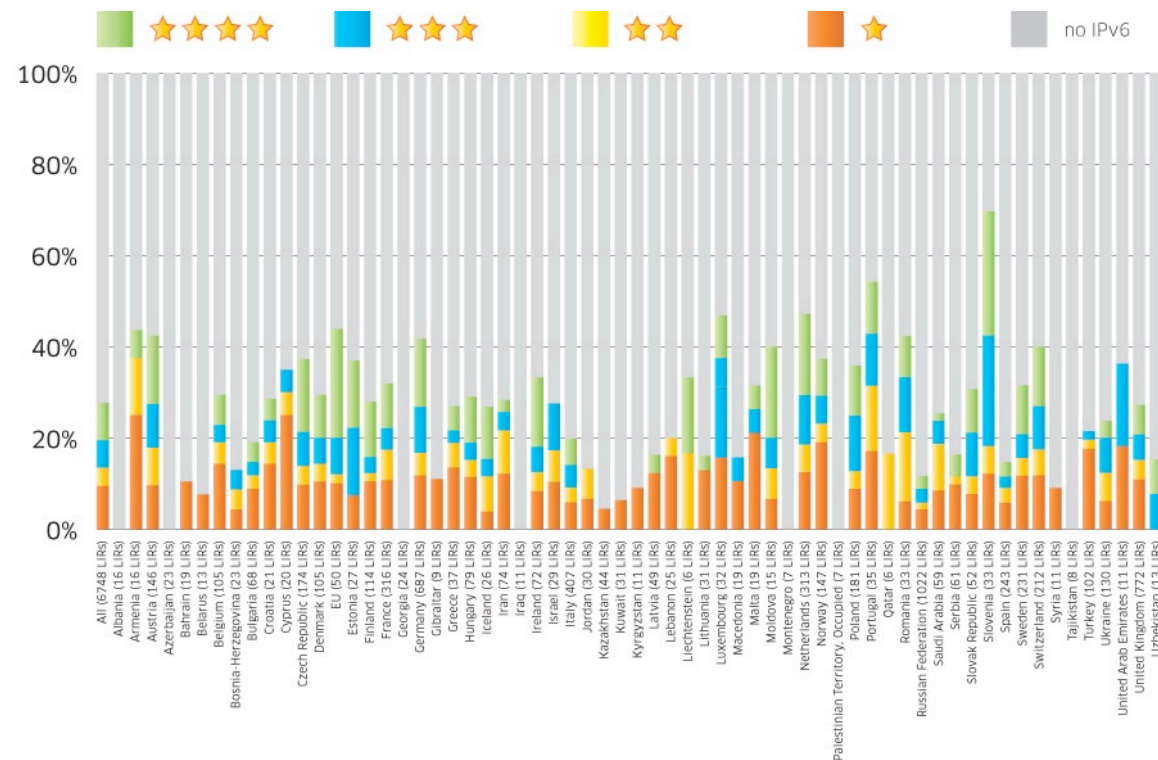


<http://labs.ripe.net/content/untunneling-ipv6>



IPv6 Ripeness

- Rating system for LIRs/ISPs based on criteria
 - IPv6 allocation, reverse DNS, route6 object in RIPE DB



<http://labs.ripe.net/content/ipv6-ripeness-first-steps>



IPv6 CPE Survey

- Survey among vendors of Customer Premise Equipment
- Results will be updated regularly

	AVM (FRITZ!Box)	Draytek	Zyxel	Juniper (ScreenOS)	Juniper (JUNOS)	Cisco
Hardware version required	7270, 7570	Vigor 2130 series, vigor 120	All models released in 2010	All	All	Most SOHO boxes
Minimum software level required	"Labor" only	2130:v1.3.0 120:v3.2.4.3	Per model, check vendor	6.1	10.2	12.4T or 15
Status	Beta	General deployment	Beta	General deployment	Early deployment	General deployment

WAN layer 2						
Docsis 3.0	vendor	no	no	no	no	-
ADSL 2+	confirmed	120 only	vendor	confirmed	confirmed	confirmed
VDSL	confirmed	no	vendor	no	vendor	-
Ethernet	confirmed	vendor	vendor	confirmed	confirmed	confirmed
FTTx	-	vendor	vendor	no	no	-
WAN Layer 3						
PPPoA	confirmed	no	vendor	no	vendor	confirmed
PPPoE	confirmed	confirmed	vendor	confirmed	confirmed	confirmed
RFC1483/bridge	vendor	no	vendor	no	no	-
RFC1483/routed	-	-	vendor	vendor	vendor	-
Plain IP	-	vendor	vendor	confirmed	confirmed	confirmed
WAN address acquiring						
PPP link local only (unnumbered)	confirmed	confirmed	vendor	confirmed	confirmed	confirmed

<http://labs.ripe.net/content/ipv6-cpe-survey>



IPv6 Training for LIRs

- Started IPv6 course in October 2009
- 25 courses provided so far
- Courses organised in 17 different countries
- Course covers:
 - Technical aspects of address format
 - Allocation policies and best current practices
 - Request and registration procedures



New Activity: IPv6 Road Show

- IPv6 Road Show in the Middle East
 - Targeted to government and enterprise employees operating networks
 - Bahrain, Lebanon, Saudi Arabia, Dubai done
 - Turkey - October 2010 (@ MENOG 7)
 - Syria - January 2011
 - Oman, Jordan, Iran TBC
- IPv6 Road show in Africa planned for 2010/2011
 - Possibly in collaboration with 6DEPLOY



Questions or Comments

- Please take a look and participate on RIPE Labs
- Questions or comments
 - mir@ripe.net or labs@ripe.net



Back-up Slides



24 Sep 2009

RIPE Labs - What's it All About?

Submitted by [mirjam](#) on Thu, 09/24/2009 - 12:09

RIPE Labs

is a new platform designed by the RIPE NCC for network operators, developers and industry experts to expose, test and discuss innovative Internet-related tools, ideas and analysis that can benefit the RIPE community and RIPE NCC members.

It's the place to showcase new and interesting things. Anyone can:

- Present research
- Showcase prototype tools
- Share operational experience
- Exchange ideas

Even if you don't have any new ideas at the moment, but are interested in reviewing the ideas and tools of others, please dive in. **RIPE Labs** is a platform **from** the RIPE community **for** the RIPE community.

» [Read more](#)



Discuss this topic here: [RIPE Labs - What's it All About?](#)

18 Sep 2009

Submit Your Ideas Now

RIPE Labs is all about you, and your ideas. You can contribute a new idea or tool by [creating a new topic](#) in the New Ideas forum or by [sending us an email](#).



Recent Articles

- [RIPE Labs Contacts](#)
- [Intro to INRDB - the Internet Number Resource Database](#)
- [REX - the Resource Explainer Disclaimer](#)
- [Launch Date: October 6 2009](#)
- [RIPE Labs - What's it All About?](#)
- [16-bit ASN Exhaustion, Some Data](#)
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Active forum topics

- [RIPE Labs - What's it All About?](#)
- [REX - the Resource Explainer](#)
- [ASN-16 Exhaustion](#)
- [Intro to INRDB](#)
- [IP Address Allocation Movies](#)

[more](#)



Why RIPE Labs?

- Faster, tighter innovation cycle
 - Provide useful prototypes to you earlier
 - Adapt to the changing environment more quickly
- Closer involvement of the community
 - Openness
 - Make feedback and suggestions easier and more effective



RIPE Labs – Next Steps

- New Web site design
 - Based on conversation and discussion
 - Includes social media aspects
 - Tag clouds, twitter feeds, comments, ratings
- New structure
 - Project pages for long term topics and tools
 - Better search mechanism



New RIPE Labs

[RIPE Database](#) | [Statistics & Analytics](#) | [RIPE Labs](#) | [DNS](#) | [Data & Tools Support](#) | [Sign In](#)

[Blog](#) • [REX](#) • [NetSense](#) • [About RIPE Labs](#) • [FAQ](#)

You are here: [Home](#) > [Data & Tools](#) > [RIPE Labs](#)

Current Conversations RSS

25
comments

Updated Reply-Size Tester

Submitted by [Anand Buddhdev](#) on 29 January 2010 - 17:42

Yesterday, we released a newer version of the reply-size test tool. We took feedback from users, and made some changes to the tool. In this newer version, you will now see a drop-down list of all the resolvers that are configured on your system, and you can select one of these to test. You can also enter an IP address of your choice to test.

Tags: [dns](#), [performance](#) » Read more

35
comments

2009 - The year before IPv6 took off?

Submitted by [Emile Aben](#) on 22 January 2010 - 13:21

You probably heard it before: "This year is going to be the year IPv6 takes off". You probably won't hear it that much more, because with the imminent IPv4 address space exhaustion either IPv6 needs to be deployed, we figure out something else, or we'll face stagnation of growth of the Internet. There isn't too much time to figure out something else so that bodes well for IPv6 deployment. And fortunately there are some encouraging signs of progress.

Tags: [ipv6](#) » Read more

Tags for RIPE Labs

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[arin](#) [draft](#) [experts](#) [ipv4](#) [ipv4](#)
[depletion](#) [ipv6](#) [pi](#) [policy](#)
[policy development](#) [ripe](#) [ripe meeting](#)
[ripe ncc](#) [routing](#) [specs](#) [statistics](#)
[training](#)

Monthly archives

- September 2009 (6)
- October 2009 (8)
- November 2009 (4)
- December 2009 (3)
- January 2010 (2)

Follow us on Twitter

Published a new and improved version of the reply-size tester tool on RIPE Labs. Check it out here: <http://tinyurl.com/yddcfa9>
29 January 2010 17:04

RT @buckthornall: Wonder what the iPad will do to the dwindling IPv4 address space?
29 January 2010 16:56

We are seeing some encouraging #IPv6 growth on RIPE Labs and the RIPE NCC web server. See some measurements here: <http://tinyurl.com/yycjnp1h>
29 January 2010 15:05

RT @APNIC: IPv6 indicator to business leaders: Business leaders can avoid risk by deploying new technology. <http://bit.ly/9cMpnc>
29 January 2010 20:00



Currently on RIPE Labs

INRDB

IP Allocation Movies

Resource Explainer (REX)

IPv4 and IPv6 Measurements

NetSense

DNS Related Tools

RIPE Database API and Tools

and much more ...



INRDB

- The Internet Number Resource Database
- A system to store and retrieve large amounts of Internet Number Resource related data
 - Routing Information Services (RIS) table dumps, IANA and RIR allocation and assignment data, other external datasets
- Helps accomplish RIPE NCC to serve the community by enabling efficient access across heterogeneous historical data
- Allows us to provide you new types of services

<http://labs.ripe.net/content/intro-inrdb-internet-number-resource-database>



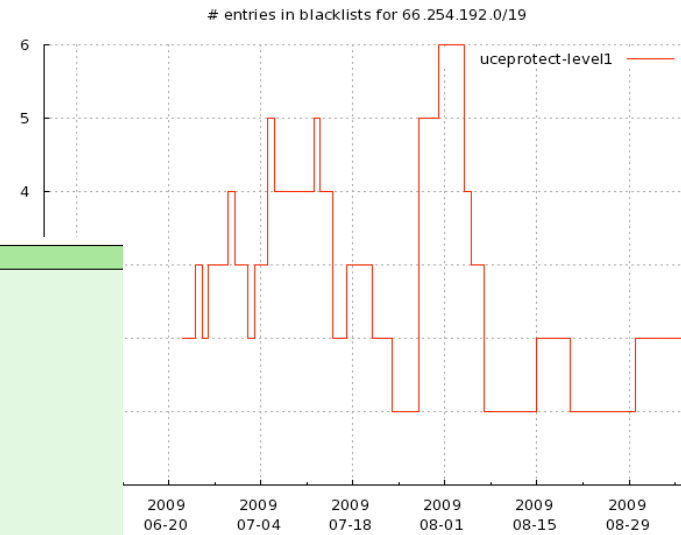
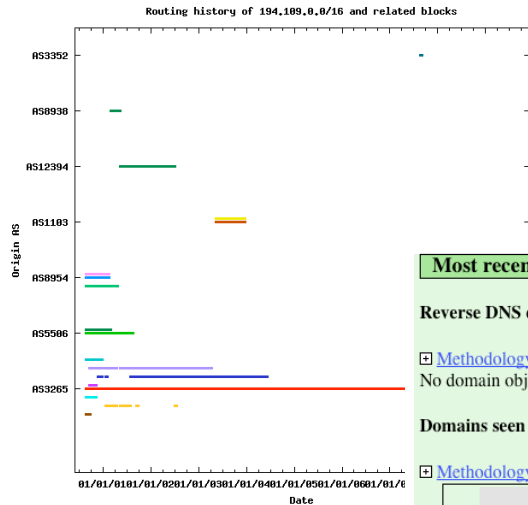
Resource Explainer

- Based on growing community needs, a service where:
 - History and current **status of resources** can be looked up
 - Information from many sources are **combined** and **explained**
- Some reasons are
 - Growing use of recycled / transferred resources
 - Proliferation of resource abuse
 - Support resource management activities

<http://labs.ripe.net/content/rex-resource-explainer>



Resource Explainer live!



Most recent information as of 2009-10-02

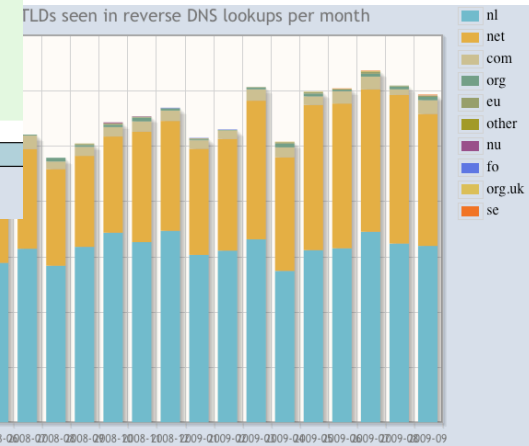
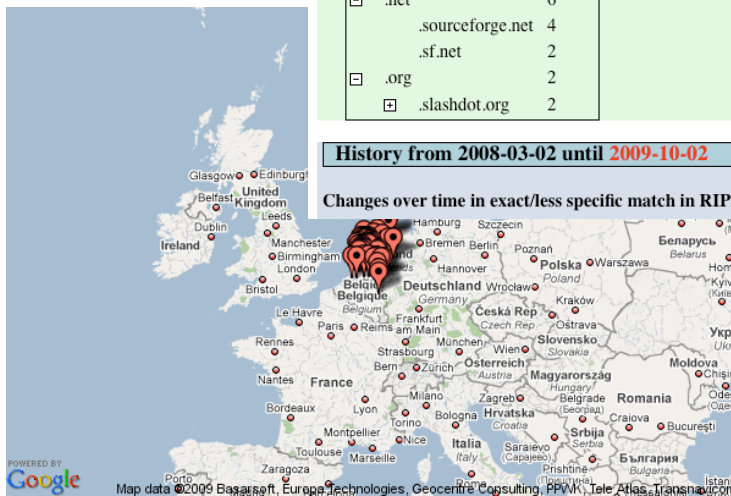
Reverse DNS delegations as seen in RIPE Database domain objects

[Methodology](#)
No domain objects found in the RIPE Database

Domains seen in reverse DNS lookups in the month before 2009-09-30

[Methodology](#)

Domain	Count
.com	8
.sourceforge.com	4
.thinkgeek.com	3
.net	6
.sourceforge.net	4
.sf.net	2
.org	2
.slashdot.org	2



History from 2008-03-02 until 2009-10-02

Changes over time in exact/less specific match in RIPE Database domain objects



NetSense (netsense.ripe.net)

- Consistent interface integrating various measurement services provided by the RIPE NCC

AS3333 - RIPE-NCC RIPE Network ...

Prefix †	First Seen †	Last Update †
193.0.22.0/23	1 month ago	5 hours ago
193.0.18.0/23	9 months ago	4 hours ago
193.0.12.0/23	9 months ago	4 hours ago
193.0.20.0/23	9 months ago	5 hours ago
2001:610:240::/42	9 months ago	5 hours ago
193.0.0.0/21	9 months ago	4 hours ago

Visibility of AS3333

POWERED BY Google

Terms of Use

Routing Consistency ▶

Don't Filter Missing in routing table
 All inconsistencies Missing in RIPE database
 Present in both

Origin Prefixes ▼

BGP Routing Table †

193.0.18.0/23
193.0.22.0/23
193.0.20.0/23
193.0.12.0/23
2001:610:240::/42
193.0.0.0/21

Import Peers **Export Peers**

RIPE Database †

193.0.18.0/23
193.0.22.0/23
193.0.20.0/23
193.0.12.0/23
Not present
193.0.0.0/21

Status †

Ok	✓
Ok	✓
Ok	✓
Ok	✓
Not present	✗
Ok	✓