RIPE Labs

Operators Tools, Ideas and Analysis

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What is 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/

Improvements on RIPE Labs

- Better navigation and search
  - Tag cloud, live search, long-term project pages
- Easier communication and participation
  - No need to register to leave comments
  - Registration only necessary for contributions and data repository project


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ExaBGP - A new Tool to Interact with BGP
Thomas Mangin — 08 July 2010 10:10
ExaBGP is a new application designed to provide an easy way for programmers and system admistrators to interact with BGP networks.
Tags: tools, routing
» Read more
0 comments
Economic Incentives for Cooperation to Fight Spam
John S. Quarterman — 06 July 2010 09:30
Users of gmail or Yahoo mail may not notice because those services filter pretty effectively, but around 90% of all email is
tagcloud
api apnic arin dns dnssec database netsense pi rex ripe 59 ripe 60 ripe db ripe meeting ripe ncc rpsl allocation experts ipv4 ipv6 ipv6 adoption
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Thomas Mangin published a new open source tool to interact with #BGP on RIPE Labs: http://bit.ly/aMtsT7 #RIPELabs
08 July 2010 11:22
A team at the university of Texas is advocating more cooperation in fighting spam. Read more on RIPE Labs: http://bit.ly/bVfrFG
06 July 2010 11:38
Part 2 of IPv6 Measurement compilation published on RIPE Labs: http://labs.ripe.net/content/ipv6-measurements-compilation-part-2
22 June 2010 15:30

Currently on RIPE Labs

IPv4 and IPv6 Measurements

DNS and DNSSEC Related Data and Tools

RIPE Database API and Abuse Finder Tool

BGP Tool

BGP Route Origin Validation

Various Stats and Measurements

and much more …

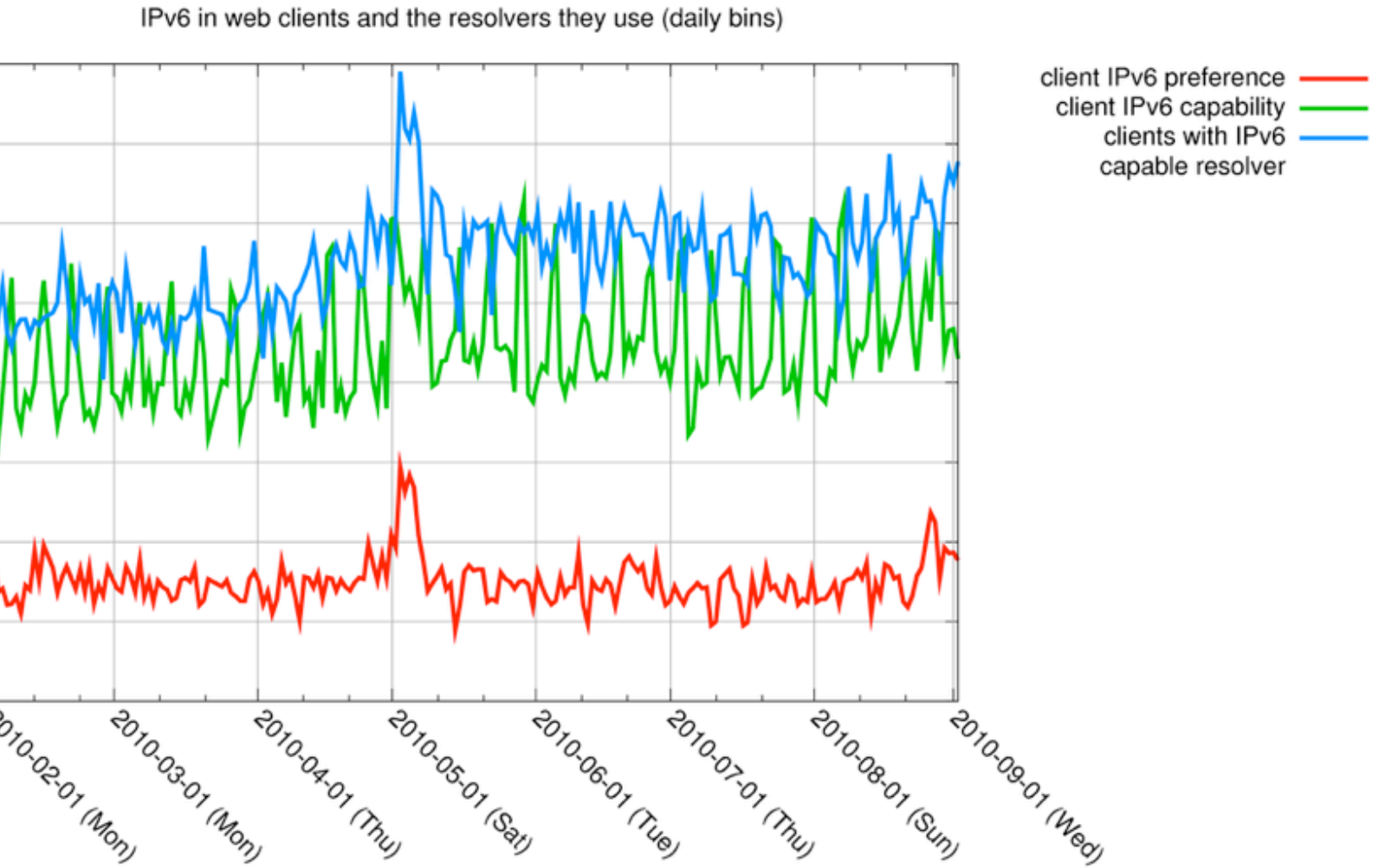
A Compilation of IPv6 Measurements

- List of IPv6 measurements and tools from various sources with a short description and links to the tools and results
  - Second part published recently
- Please let us know what type of measurements would be helpful
- Also let us know if you know of any other measurements

IPv6 at Web Clients & Resolvers

- When people connect to servers we measure
  - IPv4 capability
  - IPv6 capability
  - IPv4/IPv6 preference
- More resolvers (4.9%) than clients (1.2%) have native IPv6 connectivity
  - Clients will increase over time
    - We will continue measurements

Accessing www.ripe.net



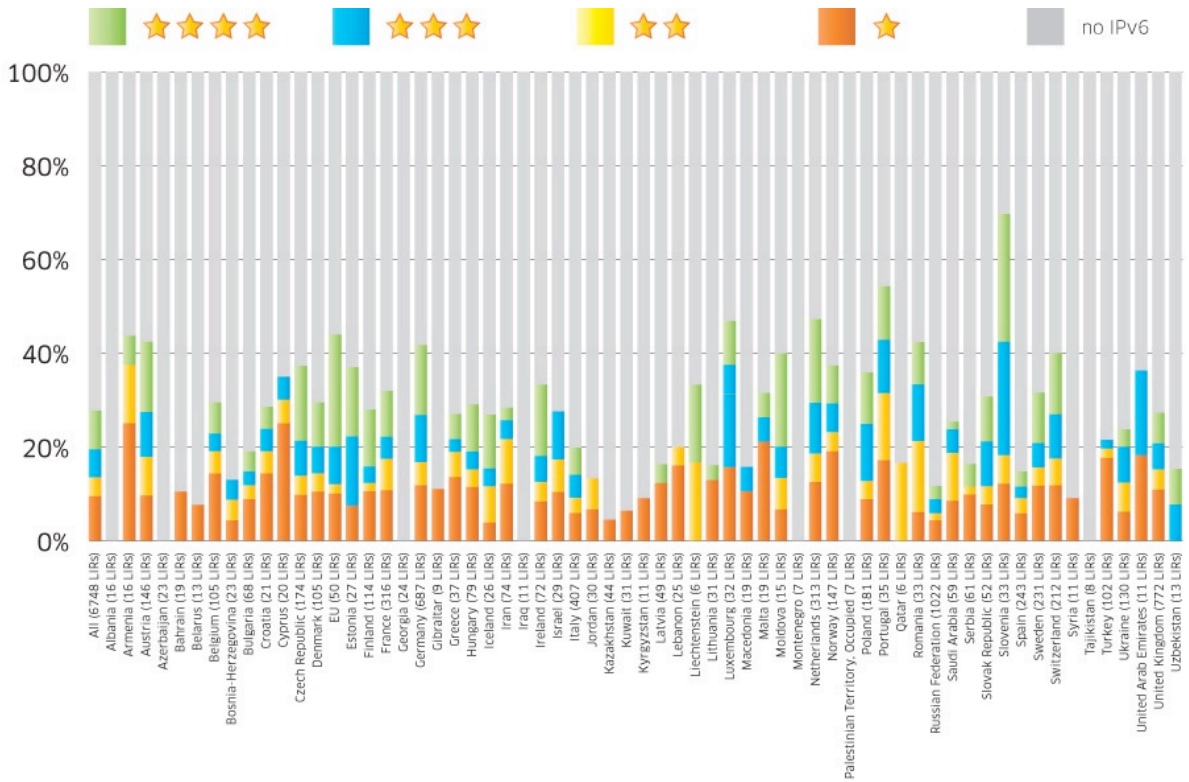
IPv6 CPE Survey

- 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 (unnumbred)	confirmed	confirmed	vendor	confirmed	confirmed	confirmed

IPv6 Ripeness

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



Active Measurements

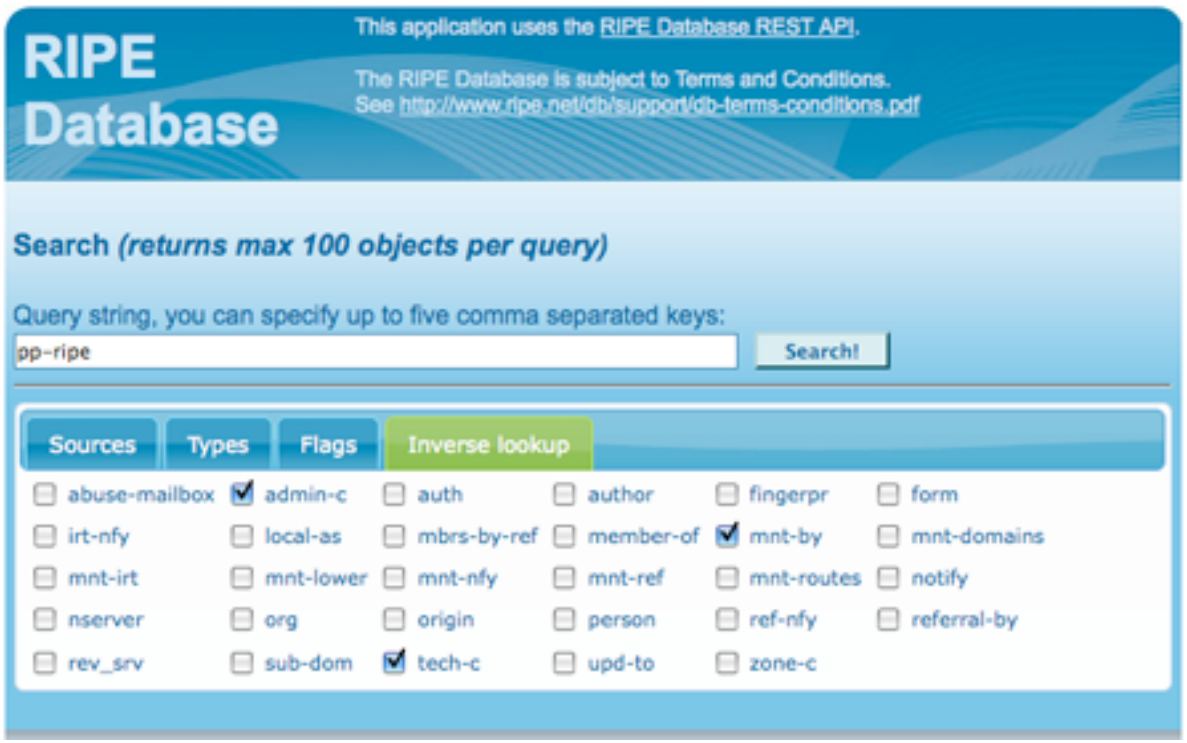
- New project to build "next generation Internet measurements" prototype
- Aim to support 100K (or more) measurement nodes around the Internet
  - they could be hosted by ISPs and individuals, too
- More details at RIPE 61 – and at UKNOF 18

DNS Related Tools

- DNSSEC for the root zone
  - Monitoring the signing of K-root
- DNS reply-size tester
  - Easy tool to determine maximum size of DNS response packets your resolver can handle
    - Many people downloaded tool
    - First Results published

RIPE Database – New Tools

- Whois data via RESTful Webservices
- RIPE Database queries including search
- Abuse Finder – A tool to find all abuse related contact information

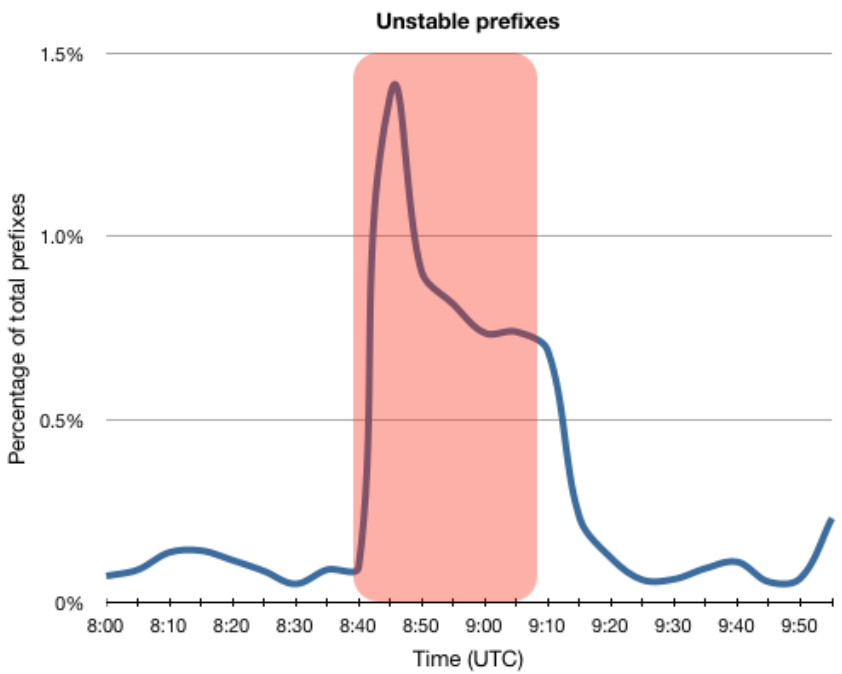


BGP, Routing, Other

- ExaBGP (Thomas Mangin)
  - A new tool to interact with BGP
- BGP Route Origin Validation
  - Effects of BGP route origin validation on mis-announcements and hijackings
- Economic Incentives for Cooperation to Fight Spam (John S. Quarterman & Team)
  - “The white hats also need more economic incentives to fight spam more affectively”

BGP Experiment

- RIS experiment to use optional attributes in BGP
- Detailed analysis on RIPE Labs



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

Questions or Suggestions

- Please take a look and **participate**
- Questions or comments
  - labs@ripe.net

https://labs.ripe.net/