RIPE Labs
Operators Tools and Data

DENOG 2, FfM, Germany, 4 November 2010

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What is RIPE Labs?

- It is a web site, 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

http://labs.ripe.net/

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Currently on RIPE Labs

tagcloud

api apnic arin
asns cpe dns
dnssec
database
netsense pi rex ripe
60 ripe db ripe
meeting ripe
ncc ris rpsl
allocation atlas
certification
datarepository
ipv4 ipv6 ipv6
adoption
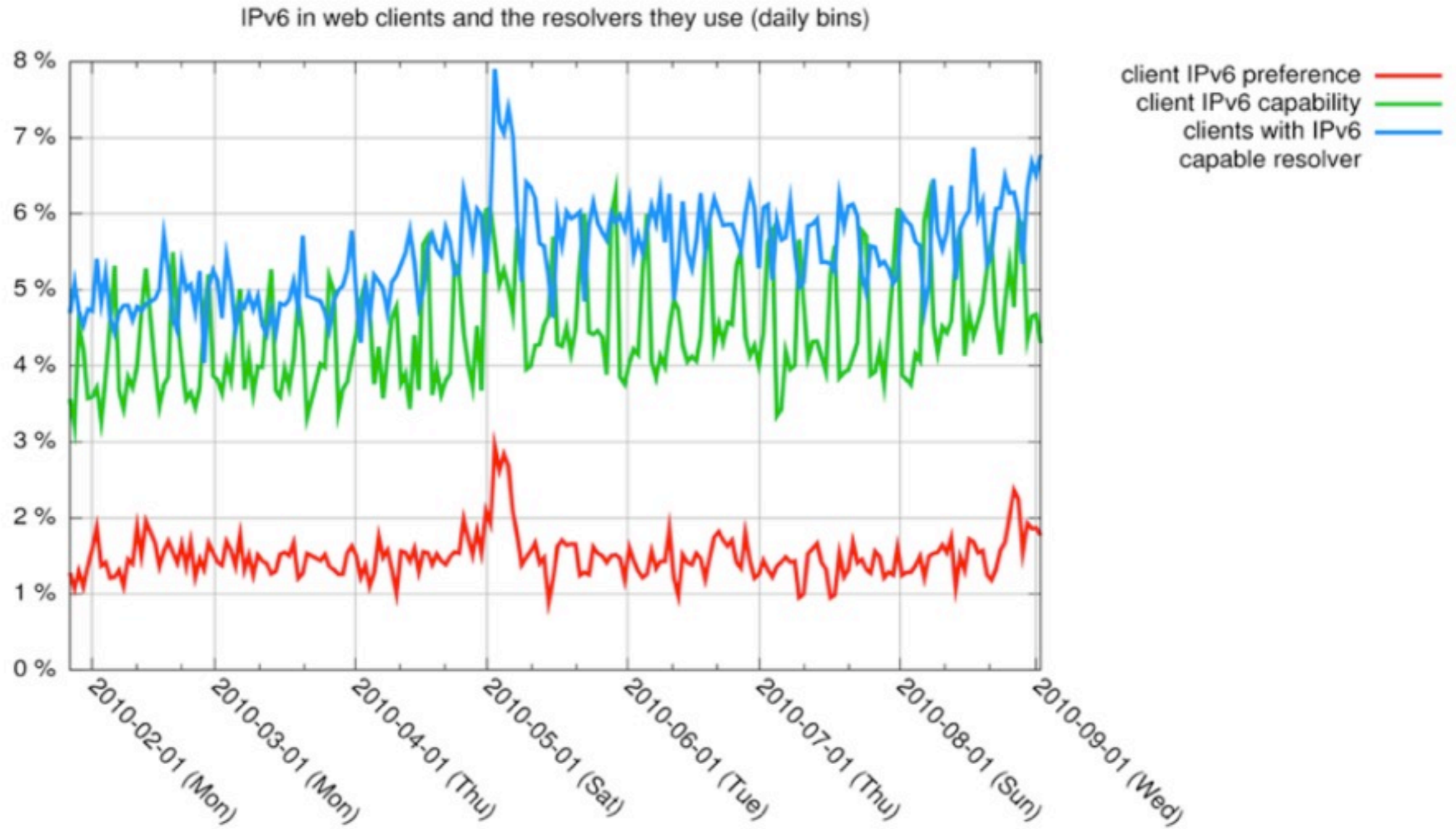measurements
policy
root-servers
routing
statistics
tools

- IPv4 and IPv4 measurements

- DNS and DNSSEC related tools

- RIPE Database API and tools

- Statistics and Measurements

- and much more...

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IPv6 at Web Clients and 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
    - Expect to see increase of clients over time
    - We will continue measurements

Accessing www.ripe.net

IPv6 in web clients and the resolvers they use (daily bins)

Legend:
- client IPv6 preference (red)
- client IPv6 capability (green)
- clients with IPv6 capable resolver (blue)

IPv6 Customer Premise Equipment Survey

- Survey among CPE vendors
- Results will be updated regularly on RIPE Labs

|	AVM (FRITZ!Box)	Draytek	Zyxel	Juniper (ScreenOS)	Juniper (JUNOS)	Cisco	D-Link
Hardware version required	7270, 7570	Vigor 2130 series, vigor 120	All models released in 2010	All	All	Most SOHO boxes	Most new 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	see notes
Status	Beta	General deployment	Beta	General deployment	Early deployment	General deployment	General deployment
WAN layer 2							
Docsis 3.0	vendor	no	no	no	no	-	-
ADSL 2+	confirmed	120 only	vendor	confirmed	confirmed	confirmed	no
VDSL	confirmed	no	vendor	no	vendor	-	no
Ethernet	confirmed	vendor	vendor	confirmed	confirmed	confirmed	confirmed
FTTx	-	vendor	vendor	no	no	-	no
WAN Layer 3							
PPPoA	confirmed	no	vendor	no	vendor	confirmed	no
PPPoE	confirmed	confirmed	vendor	confirmed	confirmed	confirmed	vendor
RFC1483/bridge	vendor	no	vendor	no	no	vendor	no
RFC1483/routed	-	-	vendor	vendor	vendor	vendor	no
Plain IP	-	vendor	vendor	confirmed	confirmed	confirmed	no

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IPv6 RIPEness
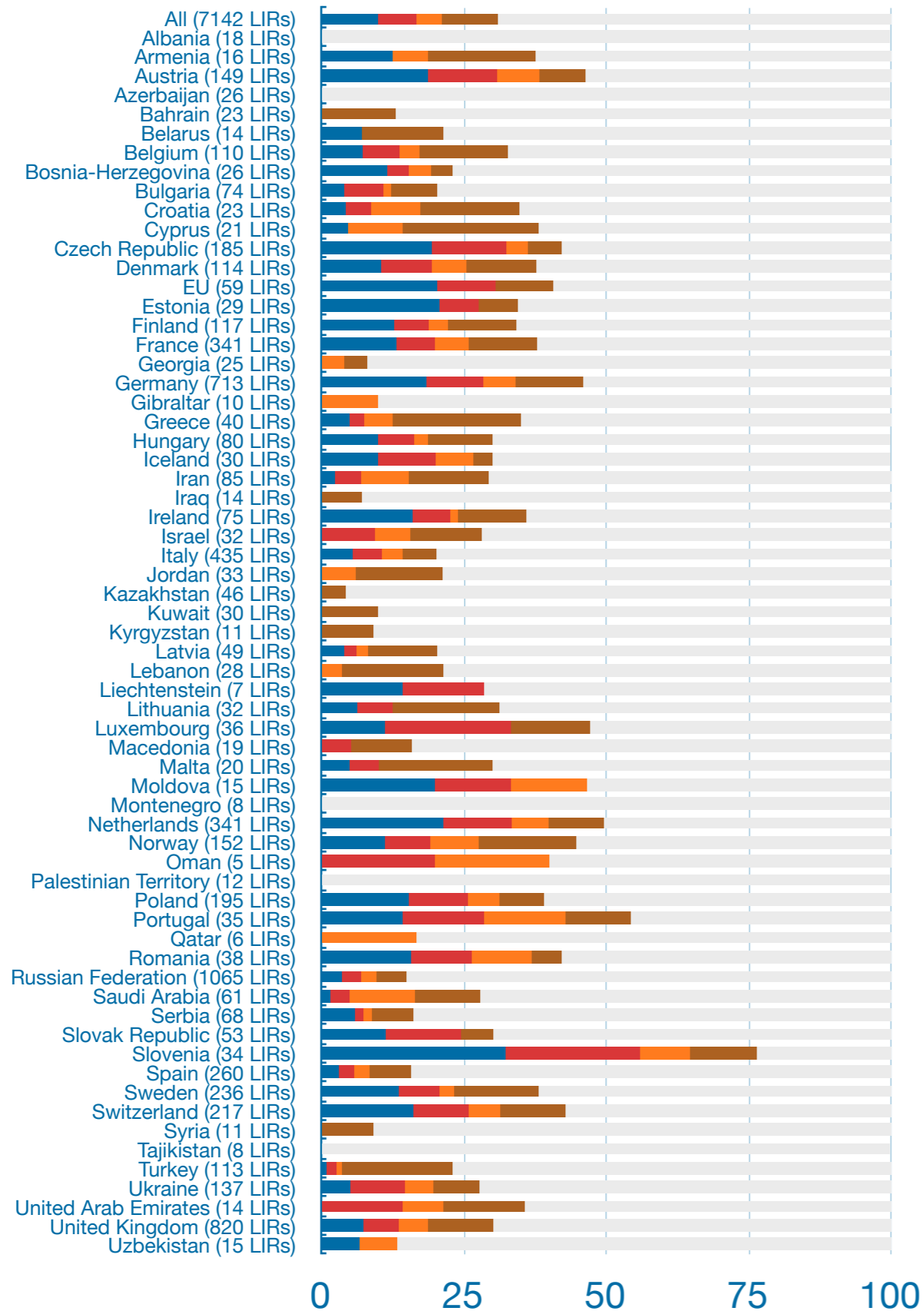
- Only listing countries with 5+ LIRs

- Large variation between countries

- Overall
  - 27% have at least 1 star
  - 73% still have 0 stars

Legend:
- 4 Stars (blue)
- 3 Stars (red)
- 2 Stars (orange)
- 1 Star (brown)
- 0 Stars (grey)

Chart countries listed (with LIRs):
All (7142 LIRs), Albania (18 LIRs), Armenia (16 LIRs), Austria (149 LIRs), Azerbaijan (26 LIRs), Bahrain (23 LIRs), Belarus (14 LIRs), Belgium (110 LIRs), Bosnia-Herzegovina (26 LIRs), Bulgaria (74 LIRs), Croatia (23 LIRs), Cyprus (21 LIRs), Czech Republic (185 LIRs), Denmark (114 LIRs), EU (59 LIRs), Estonia (29 LIRs), Finland (117 LIRs), France (341 LIRs), Georgia (25 LIRs), Germany (713 LIRs), Gibraltar (10 LIRs), Greece (40 LIRs), Hungary (80 LIRs), Iceland (30 LIRs), Iran (85 LIRs), Iraq (14 LIRs), Ireland (75 LIRs), Israel (32 LIRs), Italy (435 LIRs), Jordan (33 LIRs), Kazakhstan (46 LIRs), Kuwait (30 LIRs), Kyrgyzstan (11 LIRs), Latvia (49 LIRs), Lebanon (28 LIRs), Liechtenstein (7 LIRs), Lithuania (32 LIRs), Luxembourg (36 LIRs), Macedonia (19 LIRs), Malta (20 LIRs), Moldova (15 LIRs), Montenegro (8 LIRs), Netherlands (341 LIRs), Norway (152 LIRs), Oman (5 LIRs), Palestinian Territory (12 LIRs), Poland (195 LIRs), Portugal (35 LIRs), Qatar (6 LIRs), Romania (38 LIRs), Russian Federation (1065 LIRs), Saudi Arabia (61 LIRs), Serbia (68 LIRs), Slovak Republic (53 LIRs), Slovenia (34 LIRs), Spain (260 LIRs), Sweden (236 LIRs), Switzerland (217 LIRs), Syria (11 LIRs), Tajikistan (8 LIRs), Turkey (113 LIRs), Ukraine (137 LIRs), United Arab Emirates (14 LIRs), United Kingdom (820 LIRs), Uzbekistan (15 LIRs)

X-axis: 0, 25, 50, 75, 100

Wednesday, October 20, 2010

RIPE ATLAS - Active Measurements

- New project to build next generation Internet measurements prototype

- Aim to support 110k (or more) measurement nodes around the Internet
  - can be hosted by ISPs, IXPs, individuals...

- Will be presented at RIPE 61
  - probes will be distributed starting in November
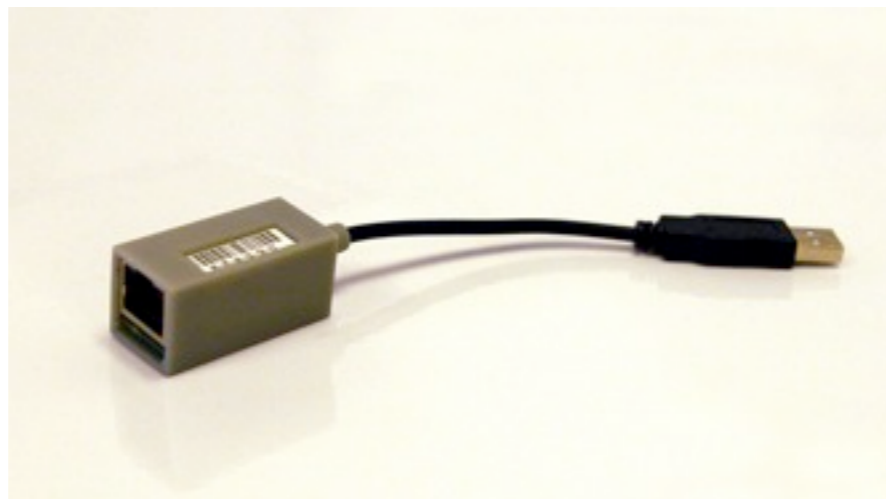
RIPE Database - New API and Tools

- Whois data via RESTful web interface

- RIPE Database queries including search

- Abuse Finder

  - Tool to find all abuse related contact information

- New and Improved Global Registry Service

Routing, Anti-Spam, and more...
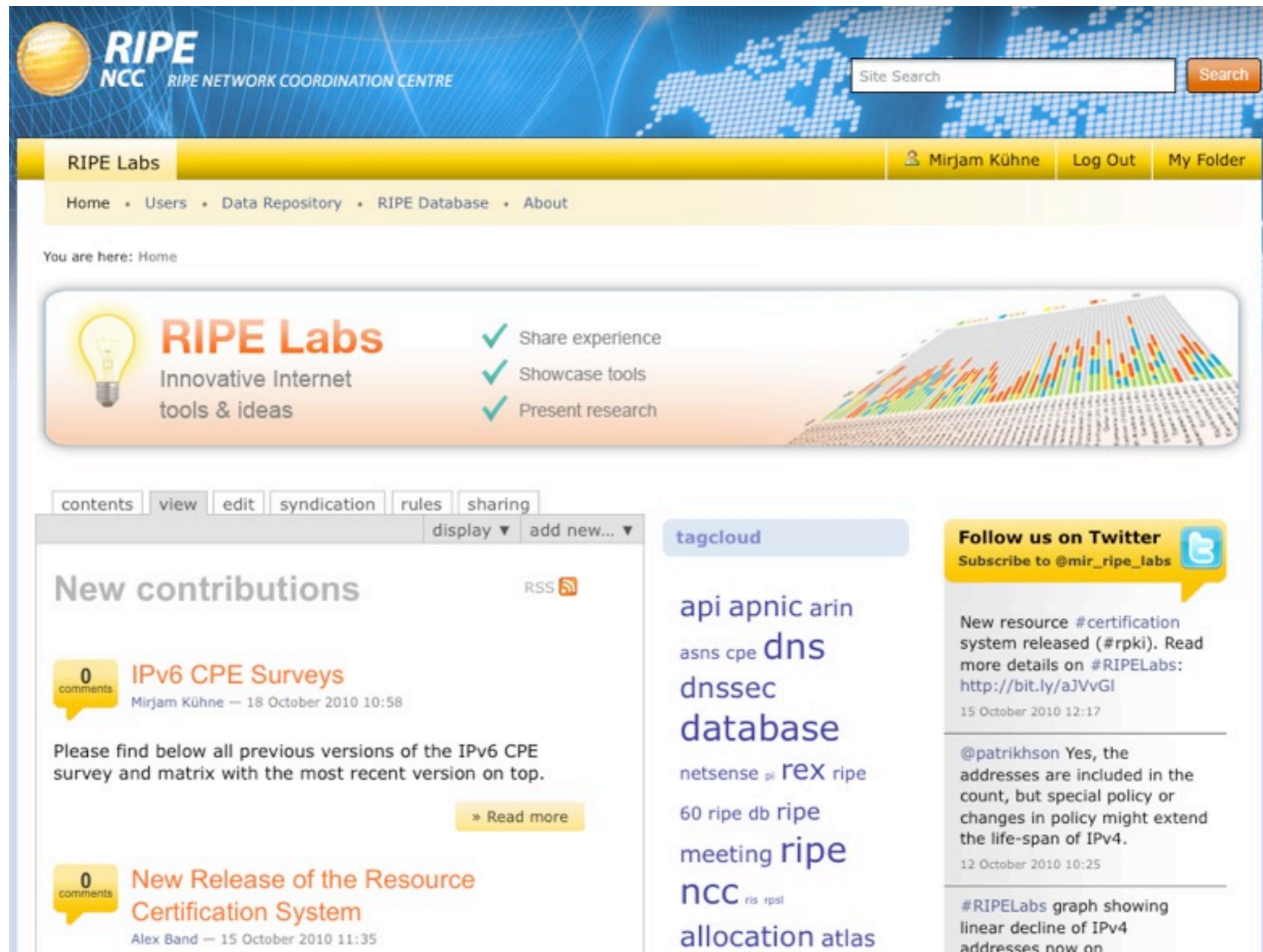
- ExaBGP (Thomas Mangin)

  - A new tool to interact with BGP

- BGP Route Origin Validation (David Murray)

- Economic Incentives for Cooperation to fight Spam (John Quarterman)

- Background Radiation in IPv6 (Geoff Huston)

- IPv6 Crawler and Matrix (Olivier Crepin-Leblond)

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Recent Improvements

- New website launched recently

- Better navigation and search
  - Tag cloud, life search, long-term project pages

- Easier communication and participation
  - No need to register to leave comments on site
  - Registration only necessary for content submissions
    and Data Repository

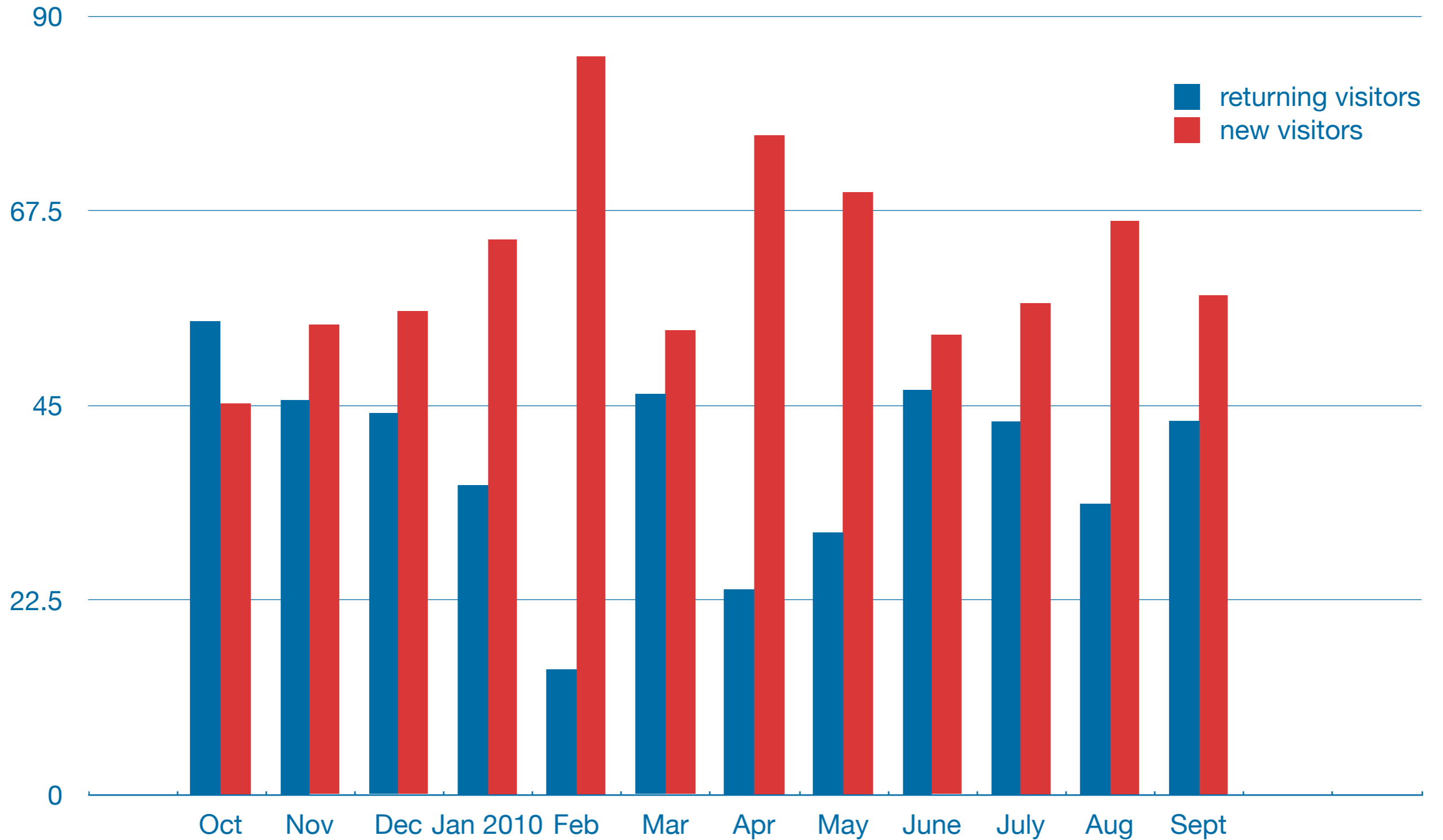# New RIPE Labs Homepage

Why RIPE Labs?

- Faster, tight 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

Number of Unique Visitors
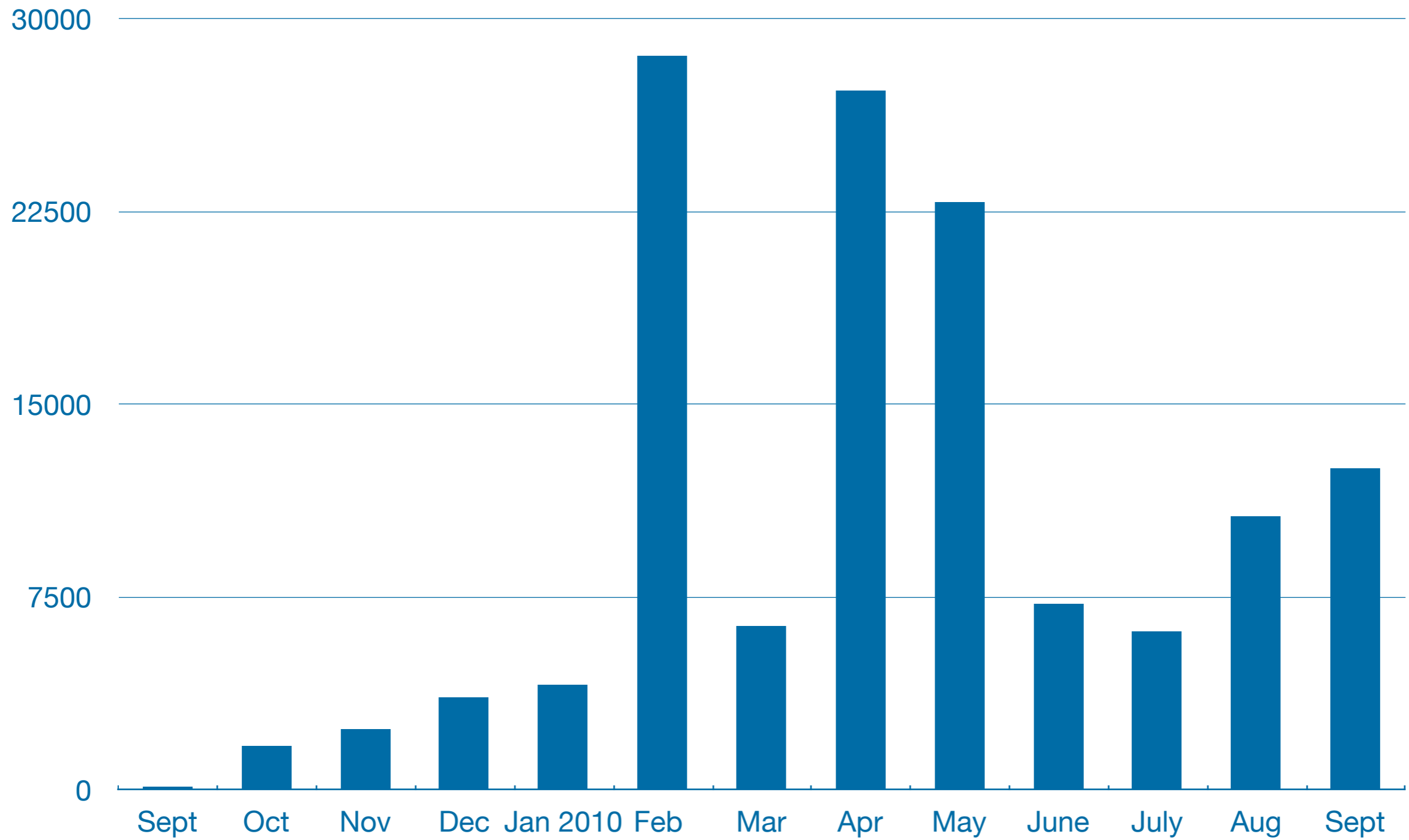
Returning vs. New Visitors (%)

Suggestion and Questions

- Please take a look and **participate**

- Leave a comment under an article

- Questions and suggestions to labs@ripe.net

http://labs.ripe.net/

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Questions?