

# Update from the RIPE NCC

Axel Pawlik  
Managing Director



# We are here to serve you

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- Secretariat for RIPE Community
- Founded in 1992
  - Teenager on verge of adulthood
- Activities to support coordination of Internet operations
  - Service region Europe, Middle East, Parts of Central Asia

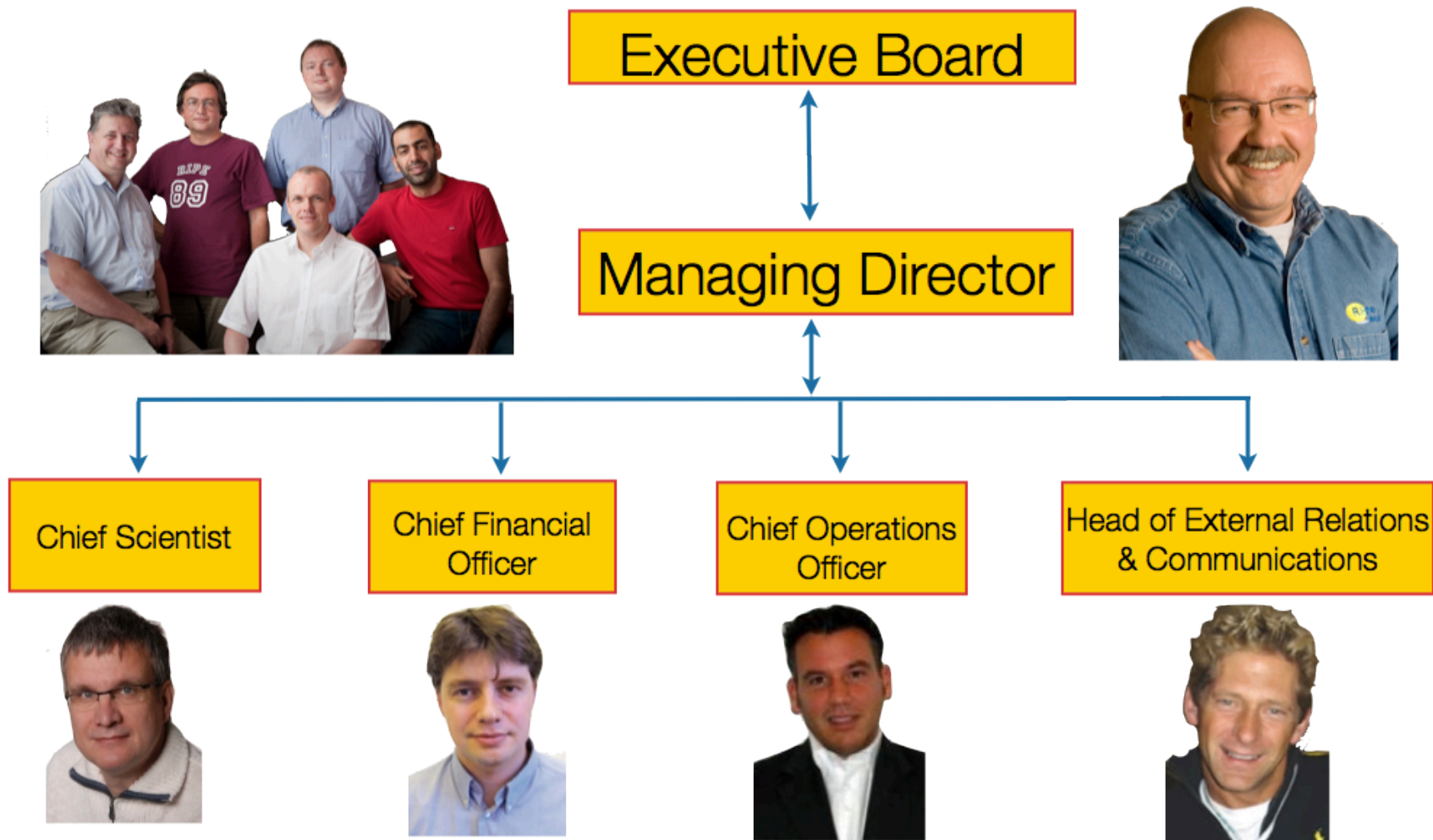
# Activities (on a neutral & impartial platform)

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- Support for RIPE
  - Policy development Process
- Regional Internet Registry
- Operations of Root Nameserver
- Operations of RIPE Database
- Internet Measurements
- Training
- Outreach
- ENUM Tier 0 Registry
- ...

# Key People

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# Future and Strategy

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- IPv4 depletion as Discontinuity
  - How will RIPE NCC be affected?
- Developing Strategies for the Future
  - Focusing on Usefulness for Members and Community
  - “Back to the Roots”
- Focus on...
  - Strong Registry
  - Strong Community

# Three Strategic Pillars

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- Resource Lifecycle Management
  - Maintaining the Number Registry
- Reliable Source of Data
  - Develop, use and publish the wealth of data available
- Developing the Role of the RIPE NCC
  - Engage Stakeholders in Internet Governance
  - Prove Utility of RIPE NCC to Public Policy Makers
  - Intensify work with RIPE Community to understand Needs

# Current Developments

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- Service to Members
  - Relevance? / Quality? / Member Communication!
- Community Engagement
  - RIPE Labs
  - Regional Meetings (MENOG, ENOG, Dubrovnik)
- Call for RIPE Meetings from (too) many corners
  - RIPE Days...
- Working with WG Chairmen
- Membership Survey to be launched on Friday
  - Your participation is crucial

# The Future

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- Allocations ↘, Registrations ↗
- Services for “Community”
  - Community of Internet Operators
  - The Internet at Large
- Welcome home holders of legacy space
- All users of RIPE NCC services should be members
  - Fair distribution of cost
- Reviewing Charging Scheme, must be...
  - Fair
  - Predictable
  - Ensuring Stability



# Roadmap “New Charging Scheme”

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- Discussions with Executive Board
- Indicate ideas to Members / General Meeting
- Go to drawing table
  - Develop scenarios
  - Write up strawman & publish to members
- Collect feedback from discussions
- Review proposal with Executive Board
- Finalise documents for General Meeting @ RIPE 63

Questions?



# Member Services

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RIPE 62

Andrew de la Haije  
COO



# Three focus points

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- Transparency and Procedures
- Evolution of services
- Improved member interaction

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## Transparency and Procedures

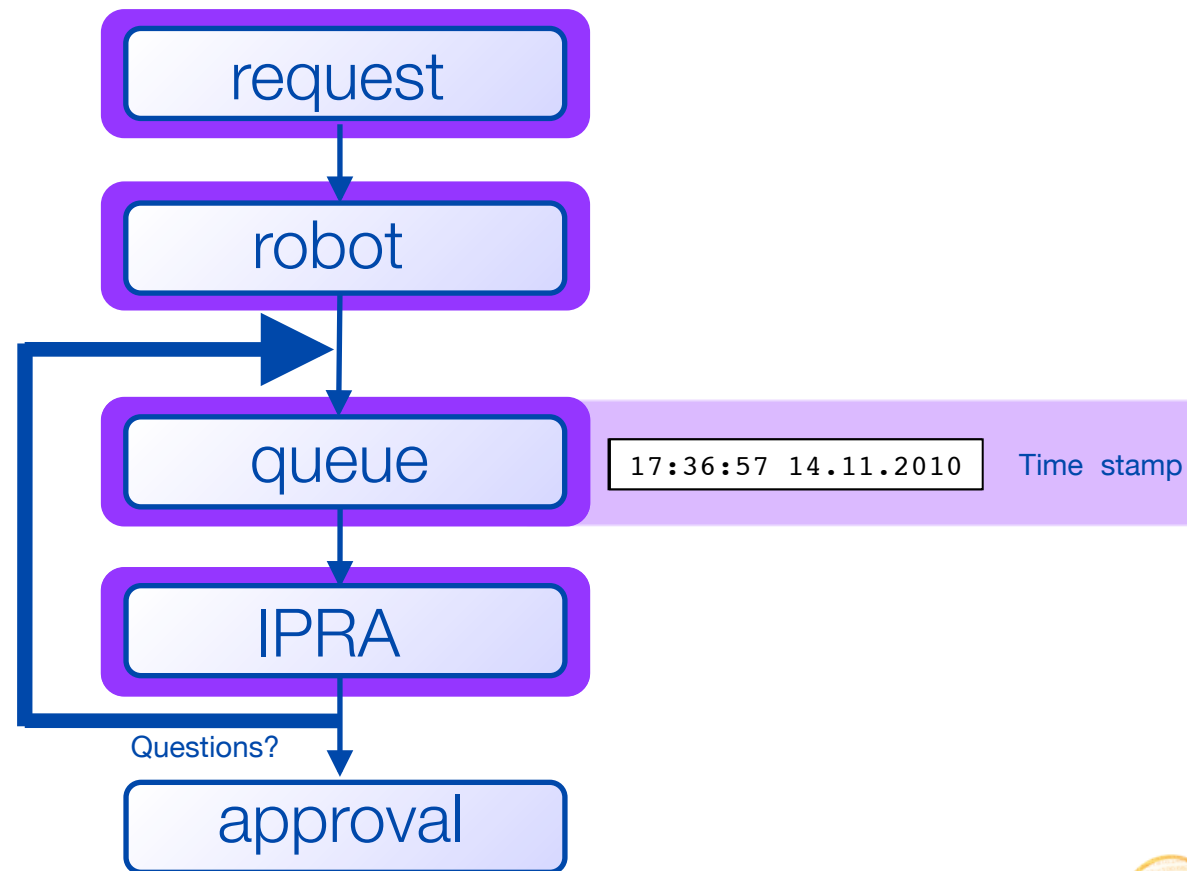
# Transparency and Procedures

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- Enhance transparency
- Driver
  - Not always as clear as we could be
- Actions
  - External Impact Analysis
  - Seeking community guidance on unclarities in policy interpretations:  
Address Policy WG and mailing list
  - Publish Evaluation procedures: IPv4 online  
<http://www.ripe.net/lir-services/resource-management/contact/ipv4-evaluation-procedures>  
IPv6 and ASN upcoming if you find this useful

# Transparency and Procedures (2)

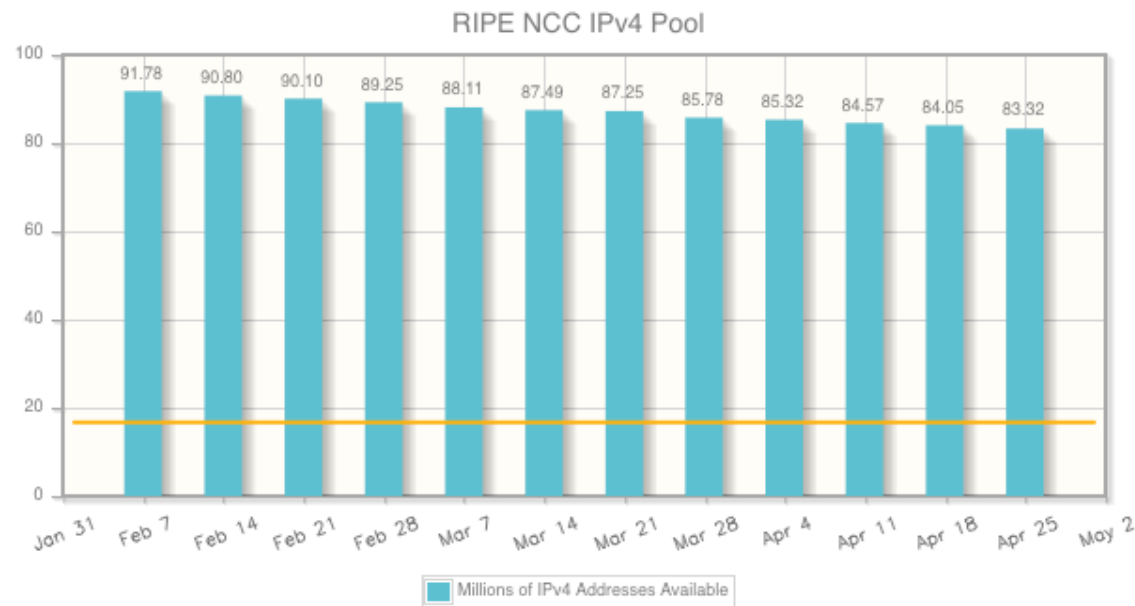
- Registration Services ticket mechanism change: all (IPv4) requests in one ticket queue, new and ongoing requests



# Transparency and Procedures (3)

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- Graph of RIPE NCC available IPv4 address space pool  
<http://www.ripe.net/internet-coordination/ipv4-exhaustion/ipv4-available-pool-graph>





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## Evolution of Services

# Evolution of Services

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- RIPE registry data quality
- Driver
  - Maintain an accurate and complete registry
  - Surveyed membership, 80% of respondents support service
- Actions
  - Confirmation of validity of LIR data
    - LIR Self-Audit (through LIR Portal)
      - Inetnum, route, rDNS and person objects
    - Confirmation visible in RIPE DB object

# Evolution of Services (2)

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- RIPE NCC Audit
  - Confirmation of validity of LIR data by RIPE NCC
    - LIR contacts, organisation and allocation details
  - Replace 'additional allocation audit'
  - 50% of membership audited per year
  - Confirmation visible in RIPE DB object

# Evolution of Services (3)

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- Resource transfer listing service
- Driver
  - Maintain an accurate and complete registry
  - Facilitate resource transfers for members
- Action
  - Provide Platform where ‘lister’ and ‘needer’ can meet
  - Member only service
  - RIPE NCC confirming
    - Member
    - Registry
    - Policy

# Evolution of Services (4)

## - Geolocation

The screenshot shows the LIR Locator web application in a browser window. The browser's address bar displays `https://lirportal.ripe.net/maps/locator/`. The page header features the RIPE NCC logo and the text "RIPE NETWORK COORDINATION CENTRE". The main content is a Google Map of the Amsterdam region, with several red pins marking the locations of LIRs. A central dialog box titled "Welcome to the LIR Locator (beta)" is open, containing the following text: "The LIR Locator lets you pinpoint the location of all LIRs in the RIPE NCC service region. Click on one of the LIRs for its contact details." Below this text is a checkbox labeled "Show this window when the LIR Locator opens." which is checked, and a "CLOSE" button. On the left side of the map, there is a sidebar titled "The LIR Locator (beta)" with a "Go to location" search input field, a "UPDATE MAP" button, and an "IPv6 RIPEness" section with a checkbox for "Only show LIRs with 4 stars". The footer of the page contains copyright information for RIPE NCC and various navigation links.

# The Problem

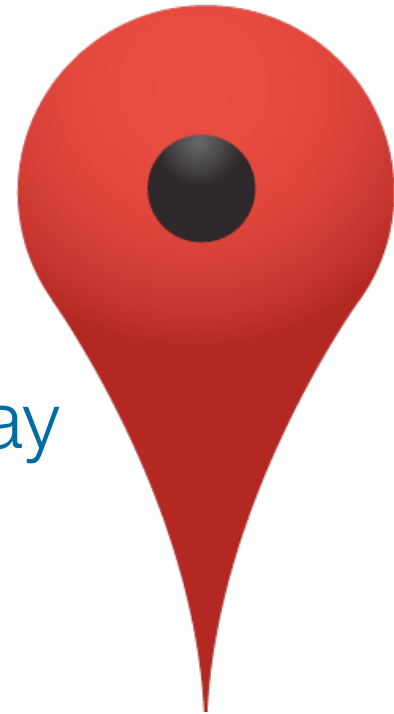
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- No mechanism to link IP addresses to a location
- Establishing this link is difficult and error prone:
  - Finding out a postal address is hard
  - Translating the address to a geolocation is hard
- The result:
  - Location based services may be mismatched
    - Access to certain services could be blocked
    - Content could be delivered in the wrong language

# Solution

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- You are the holder of the IP address block
  - You are the authority on where the block is used
  - You know what services are offered
  - You know the preferred language
- The RIPE NCC will provide the gateway through the RIPE Database



# Everybody Benefits

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- End Users
  - Receive content in the desired language
    - and related to their location
- LIRs
  - Full control over location based services
    - Less End User complaints
- Content Providers
  - Easier to address their target audience



# The Way Forward

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- Adding location data is always optional!
- Your privacy is guaranteed
  - Linking of individual IPs to a location never possible
  - Resolution of data is user defined
    - You are in control of the granularity
- We are actively looking for feedback and ideas
  - Check RIPE Labs for updates
- Cooperation with Google, MaxMind, IP2Location
  - Can you introduce us to other partners? Let us know!

# Working with 3rd Parties

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- Cooperation with Google, MaxMind, IP2Location
  - If you opt to add location data to your RIPE Database objects, it will be added to their data sets

Can you introduce us to other partners?  
Let us know!

# Evolution of Services (5)

- Certification
  - Enhancement of Registration information
  - Launched 1 January 2011
  - 430 members certified their address space



The screenshot shows the RIPE NCC website's 'Certification' page. The header includes the RIPE NCC logo and a search bar. The main navigation menu has tabs for 'LIR Portal', 'About The RIPE NCC', 'Member Support', 'Resource Management', and 'Training'. Below the navigation is a breadcrumb trail: 'You are here: Home > LIR Services > Resource Management > Certification'. The main content area features a 'Certification' section with a text block explaining that resource certification verifies the legitimacy of a resource's allocation or assignment by a Regional Internet Registry. To the right of this text is a video player titled 'Resource Certification Explai...' showing a person's hands typing on a keyboard. Below the video is a caption: 'A brief video explaining Internet number resource certification and how it can help create a more secure Internet routing environment.' To the left of the video is a 'Validation Information' button. On the right side of the page, there are 'Quick Links' for 'Certification Portal' and 'Resource Quality Assistance', and a 'Certification' section with links for 'Overview', 'How Certification Works', 'Certification for RIPE NCC Members', 'RIPE NCC Certification Howto', 'Validation Information', and 'Community Development'.

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## Member Interaction

# Member Interaction

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- Network Coordination Services

<http://www.ripe.net/lir-services/resource-management/ripe-ncc-resource-quality-assistance>

- Driver

- Regular requests for support on filtering issues
- Issues with getting in contact with the right contacts

- Action

- Assist by coordination
  - Information and guidance on filtering and tools to identify who and why
  - If needed put both parties into contact and coordinate

# Member Interaction (2)

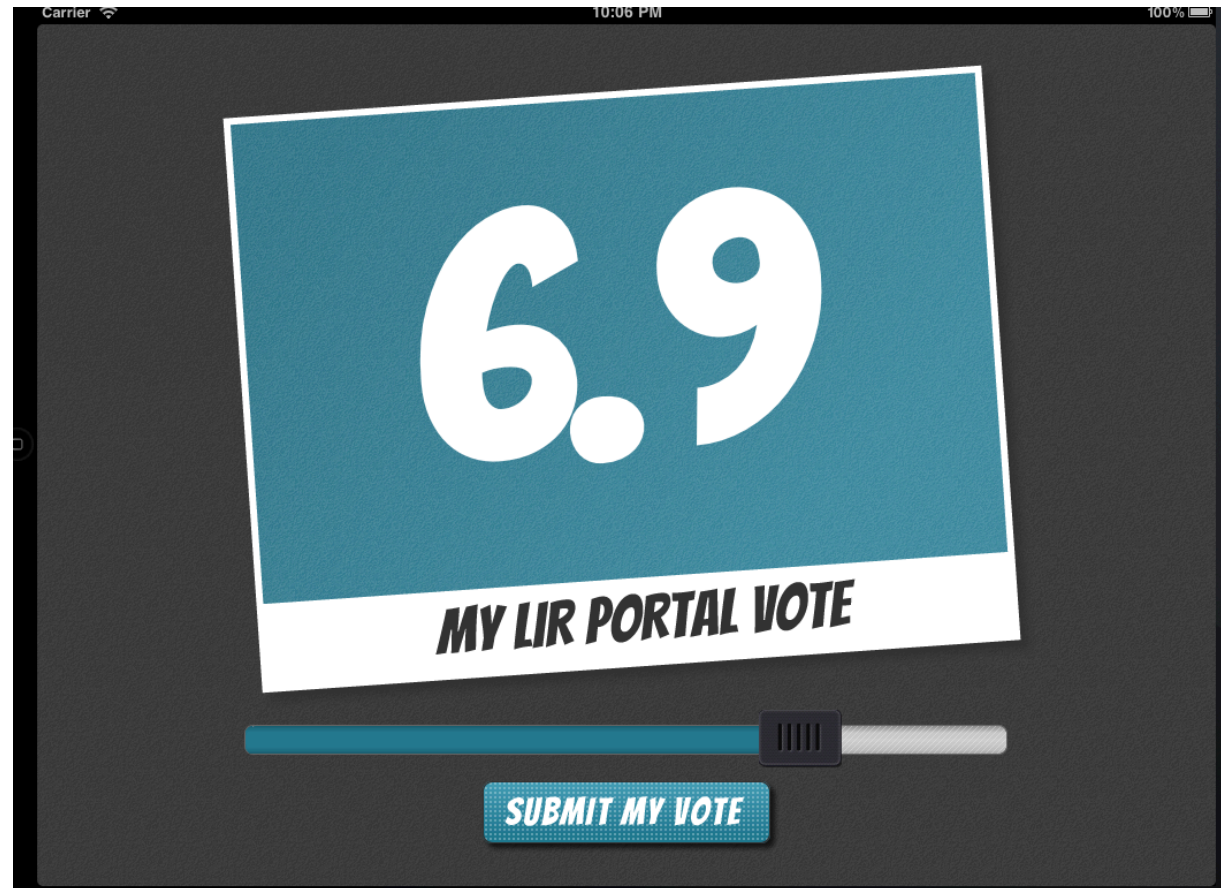
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- Proven benefit (recent case)
  - Small LIR: /20 allocation being filtered by large ISP based on former holder of address space
  - RS contacted large ISP, giving neutral information/contact information
  - Large ISP investigated and fixed. Resolved in 3 working days

## Member Interaction (2)

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- Feedback on LIR portal functionality



# Member Interaction (3)

- Pilot web-chat functionality

The screenshot shows the RIPE NCC website's Member Support page. At the top left is the RIPE NCC logo. To its right is a search bar with the text "Search Site" and a "Search" button. Below the logo is a navigation menu with tabs for "LIR Portal", "About The RIPE NCC", "Member Support", "Resource Management", and "Training". Under "Member Support", there are links for "Membership Information", "Become a Member", "FAQs", and "Quality Audit". The main content area has a breadcrumb trail: "You are here: Home > LIR Services > Member Support". The "Member Support" section contains text about becoming a member, a "Become a Member" button, and a "Getting in touch" section with a "Contact us" button. To the right is a "Quick Links" sidebar with links like "Become a Member", "Application Complete?", "Request Forms & Supporting Notes", "Help & Support", "List of Members", "LIR Locator", and "FAQs". At the bottom right is a "RIPE Database Search" box with a search input and a "search" button.



# Member Interaction (3)

- RIPE NCC Mobile Pilot



# RIPE NCC Mobile Pilot



[mobile.balounge.net](http://mobile.balounge.net)

Questions?



# Support department Update

Finance, Admin, Facilities, Legal,  
Info Security and IT

Jochem de Ruig  
Chief Financial Officer



# Finance & admin update 2011

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- Invoicing & payments 2011
  - Investigating additional payment tools
  - Set up of paypal for RIPE meetings
- Audit 2010 & new auditors 2011
- RIPE NCC office improvements
  - New access card system, “airco”/fresh air system
- Continuous automation improvements
  - Business expense claim tool
  - Travel request/authorisation software replacement

# Legal update

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- Continuous work on RIPE NCC Governance docs
  - Transfer doc, due diligence, audits, abuse handling etc.
- Legal framework for RPKI
- Engagement with law enforcement and regulators
  - LEA event during e-crime congress in London
  - Council of Europe – Critical Infrastructure
- Ongoing legal support
  - Impact analysis on policies, legal requests

# IT Infrastructure & Information Security

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- Review of IT Infrastructure
  - Different perspective, aim to simplify, increase efficiency
- Support for RIPE NCC services (incl RIPE mtg)
- Security review of infrastructure
  - Network Intrusion Detection System
- Information security review of internal processes
  - Due diligence on member enrollment

# Science, Data, DNS

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The Highlights.  
Any Questions Welcome.









Daniel Karrenberg  
Chief Scientist





# RIPE ATLAS

## Active Internet Measurements from a Lot of Small Probes

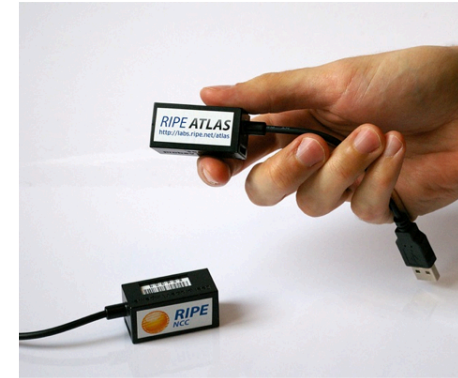
Measurements. Key (minimum RTT):  ≤ 10ms  ≤ 20ms  ≤ 30ms  ≤ 40ms  ≤ 50ms  ≤ 100ms  ≤ 200ms  ≤ 300ms  ≤ 500ms




# RIPE ATLAS

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- Launched at previous RIPE meeting (Rome)
- Atlas.ripe.net
- Seeking Sponsors
- 350+ probes deployed
- Deploying 1024 more in the coming months
  - Aiming for good geographical and topological coverage
- Deploying another 1024 from October
- Details @ MAT-WG and Measurements BoF





Your network: **AS2121** , **193.0.24.0/21**      Example: **IPv4**, **IPv6**, **ASN**

### Whois Matches

<b>resource</b>	AS1267	<a href="#">Show all fields</a>
<b>as-name</b>	ASN-INFOSTRADA	
<b>maintainer ID/handle</b>	AS1267-MNT	
<b>description</b>	Infostrada S.p.A. IUnet S.p.A.	

**non-RIPE resources are only updated daily**

*Subquery took 1068 msec (Ref: Q110539/583945 R0)*

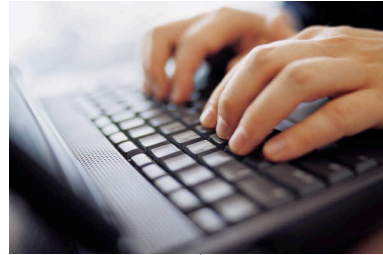
Download as: [raw data](#)
View: [link specification methodology](#)

### Prefixes originated by AS1267

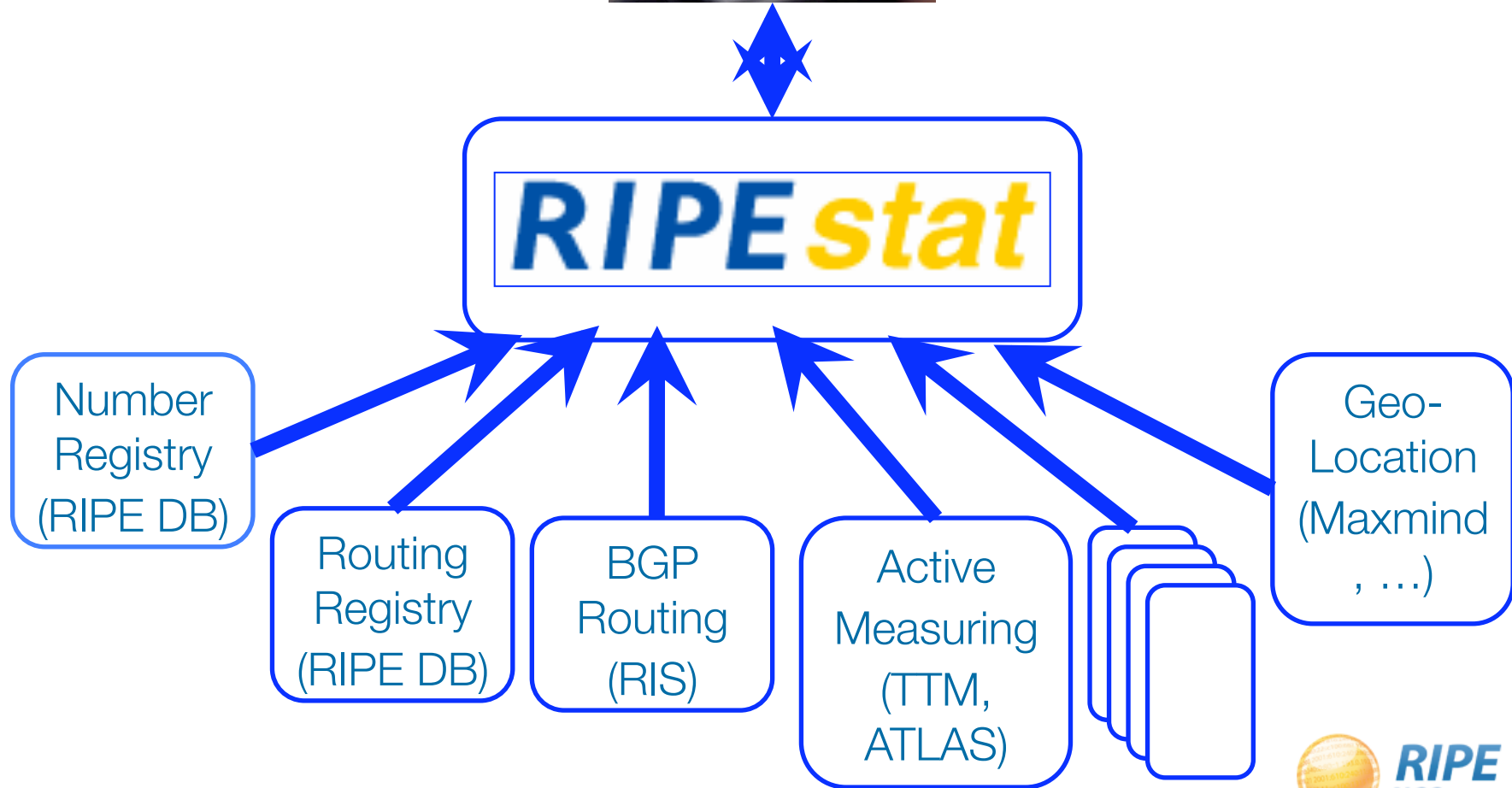
Show  entries Search:

Prefix	First Seen	Last Seen	Peers Seeing
77.95.168.0/21	2008-09-11 16:00:00	2008-09-18 16:00:00	126
151.43.60.0/22	2008-04-02 16:00:00	2009-03-23 08:00:00	114
151.36.208.0/20	2008-04-02 16:00:00	2009-03-23 08:00:00	114
151.38.4.0/22	2009-02-04 00:00:00	2009-02-04 08:00:00	114
151.36.16.0/20	2009-02-04 00:00:00	2009-02-04 08:00:00	114
151.53.182.0/18	2009-02-04 00:00:00	2009-02-04 08:00:00	112

# RIPEstat



You



# RIPEstat

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- Beta(!) launched this meeting: **stat.ripe.net**
- Eventually to replace most measurement tools
- Iterative Development
  - Public demos by teleconference every 4 weeks
  - Demo minutes on RIPE Labs
  - Demo recordings @ stat.ripe.net
- Tell us what you need!
- You will get the tools you deserve ...
- Details @ MAT-WG and Measurement BoF



# RIPE TTM Future

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- TTM is an “old” service
- Designed for different environment than today’s
- We will evaluate current usefulness for subscribers
- Then we will make a plan to evolve it
- Current Straw man: integrate into RIPE Atlas
- We will talk to all subscribers

Questions?

Also about  
things I did  
not mention.



# External Relations & Communications

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Paul Rendek  
Head of Communications and External  
Relations





# Outreach Goals

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- From the Activity Plan 2010:
  - *Work with a range of stakeholders from both the public and private sectors*
  - *Continue to promote the important dialogue between the technical community and governments*
  - *Relevant parties working together to understand the changing Internet landscape and to make informed decisions that guarantee the stability of the Internet*

# Why?

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- Internet is a multistakeholder arena - we're not the only ones making decisions!
- Governments, international organisations and law enforcement growing their influence in Internet governance
- Keep Gov'ts informed so that they can make better public policy
- Other stakeholders see the benefits of the open and inclusive model to cooperate with each other

# RIPE NCC Outreach Activities

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- Technical communities (NOGs, NRENs, ETNO... )
- Local IPv6 related events
- Internet governance circus ;-)
- Government, Regulators, Law Enforcement
- Inter-governmental organisations (OECD, Council of Europe, ITU...)
  
- Coordination with industry partners – RIRs, ISOC, ICANN, IETF...

# Recent Activities

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- Internet governance structures
  - IGF continuation discussions, CSTD working group
  - NTIA Notice of Inquiry on future of IANA function  
<http://www.nro.net/news/nro-response-to-ntia>
- ITU IPv6 Group (April 2011)
  - IPv6 Roadshow hailed as a successful model for capacity building

# How?

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- Meetings
  - RIPE Meetings, RIPE NCC Roundtable Meetings, RIPE NCC Regional Meetings (in collaboration with MENO and ENOG, Dubrovnik)
- Presence at Operator Forums
- Speaking opportunities at numerous events
- RIPE Labs
- RIPE NCC/RIPE Website
- Annual Report – published soon!

# Survey Time!

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- RIPE NCC Member and Stakeholder Survey 2011
  - Opens from 6 May – 10 June 2011

Questions?

