



RIPE NCC Status

RIPE NCC Staff

presented by:
Axel Pawlik
Managing Director

Axel Pawlik

RIPE NCC General Meeting, 29 October 2002, Amsterdam

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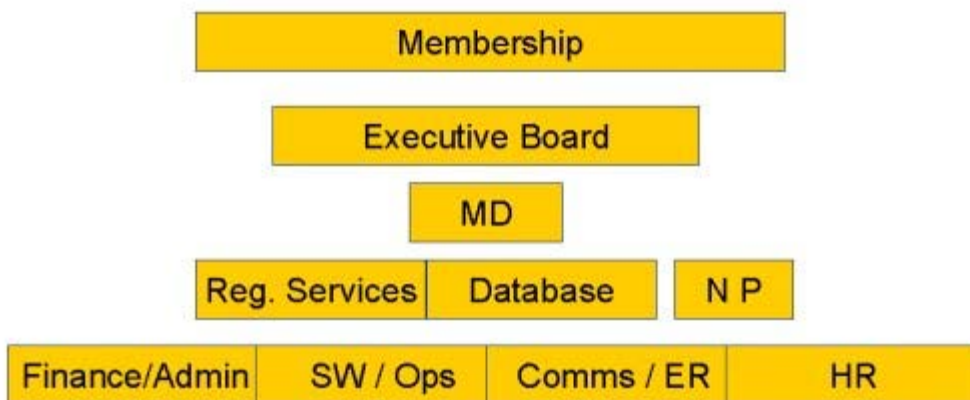
Outline

- **RIPE NCC Structure**
- **Services & Co-ordination Activities**
 - RIPE NCC Membership
 - Address Usage
 - RS / Statistics
 - Database
 - Test Traffic Measurement
 - ICANN / ASO
 - Communications
 - Membership Survey
- **New Projects**
- **RIPE NCC Next Steps & Priorities**





RIPE NCC Structure





Who's Who?



• Axel Pawlik – Managing Director



• Jochem de Ruig – Chief Financial Officer



• Paul Rendek – Communications Manager



• Mirjam Kühne – Director of External Relations



• Andrei Robachevsky – Chief Technical Officer

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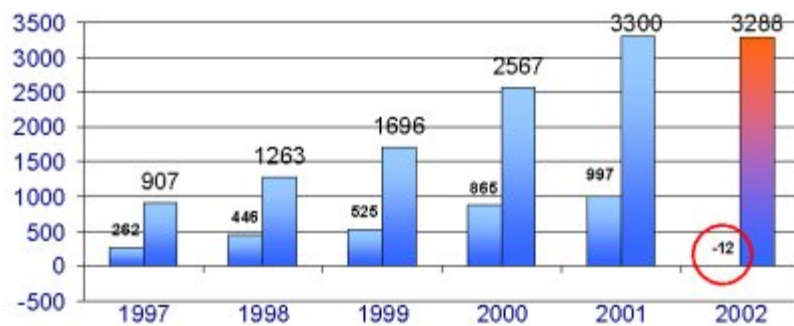
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New & Total LIRs 1997-2002





Requests for Membership Received



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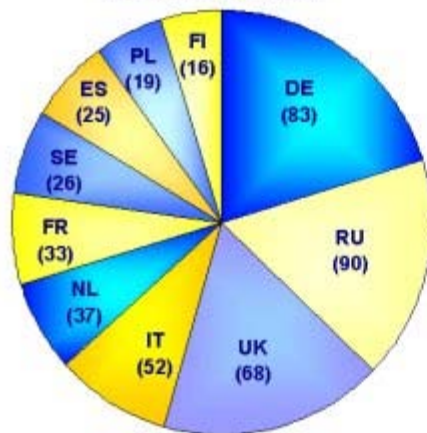


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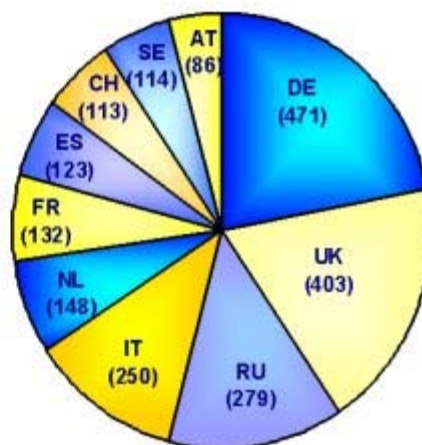


TOP 10 Countries

New LIRs
(Last 12 months)



Total Membership



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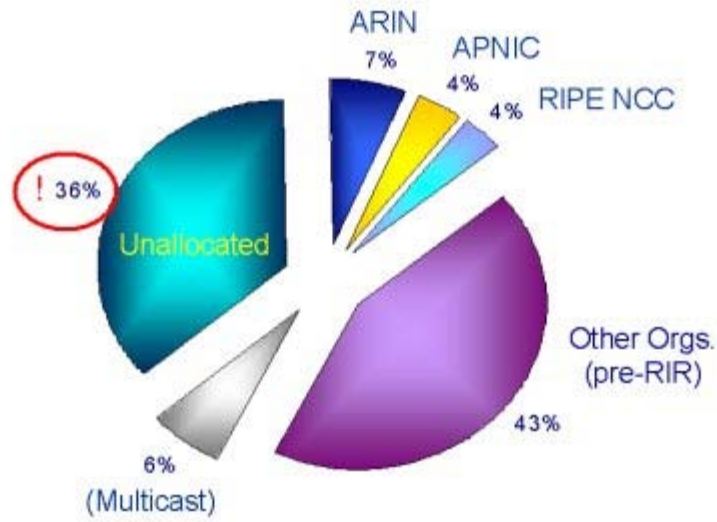
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IANA Delegations IPv4 Address Space



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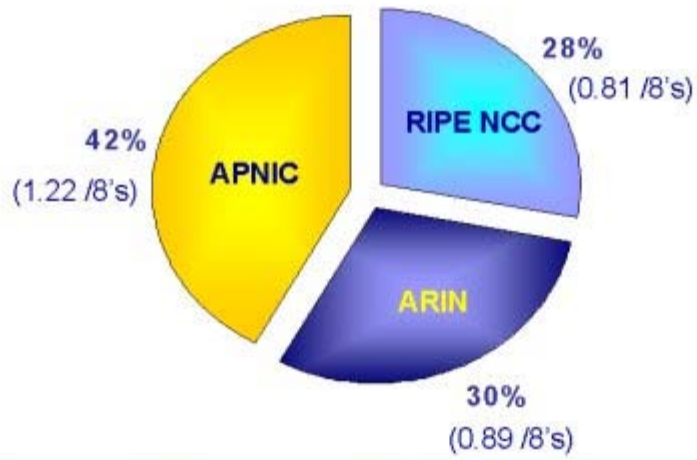
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IPv4 Allocations per RIR 2002 (Jan-Aug)



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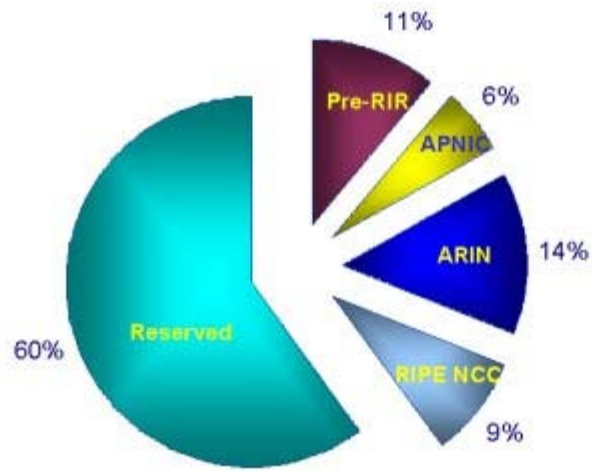
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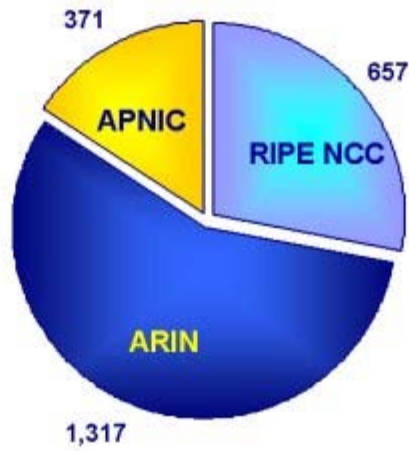


IANA ASN Delegations





ASN Assignments per RIR 2002 (Jan-Aug)



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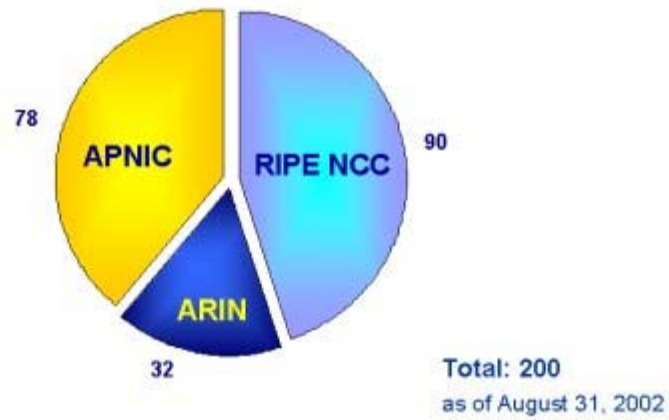
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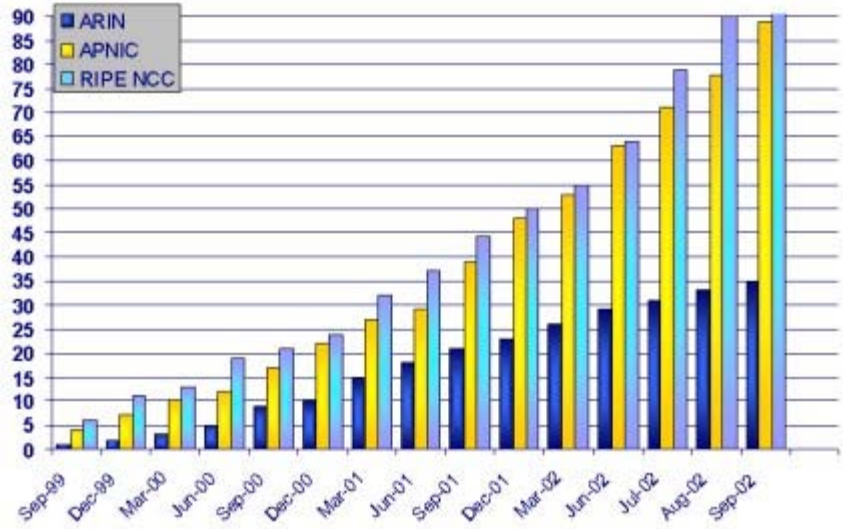


IPv6 Allocations per RIR 1999-2002





Total IPv6 Allocations per RIR 1999-2002

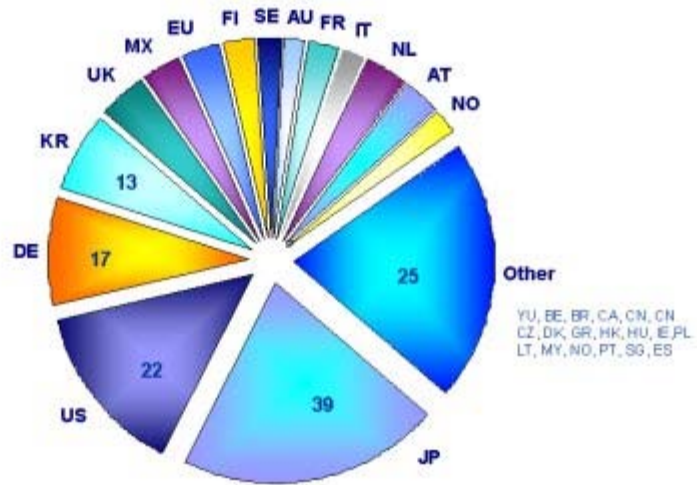


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Total IPv6 Allocations by Country



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LIR Training Courses

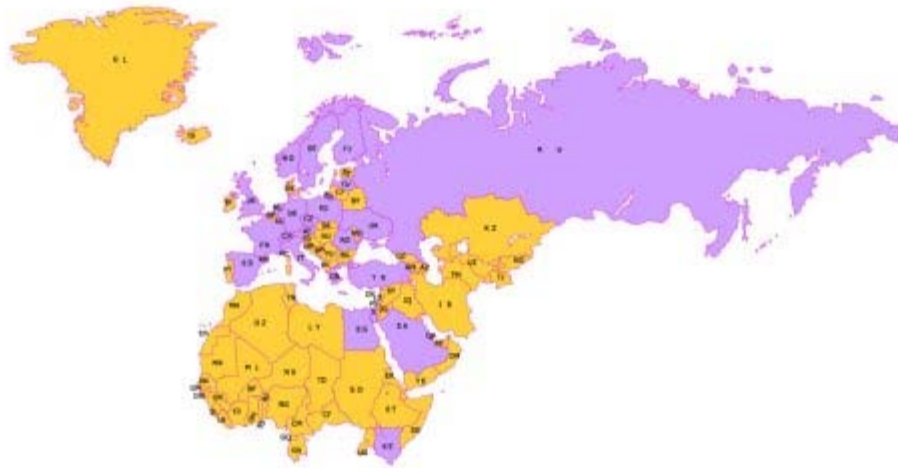
- 60% increase in courses given since 2000
- 65+ courses planned for 2002
 - ~1800 people trained
- 75-85 courses planned for 2003
- 27 countries to be visited this year
 - Making training accessible to **all** members
- Courses in Q4 2002
 - 17 countries
 - Kenya, Sweden, France, Romania, Russia, Netherlands, Greece, Denmark, Italy, Malta, Kazakhstan, Bosnia, Spain, England, Hungary, Germany, Portugal





LIR Training Courses 2002

Countries visited



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New Requests Received over time



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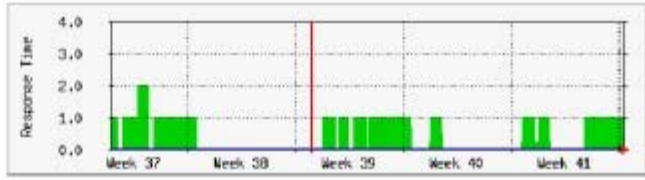




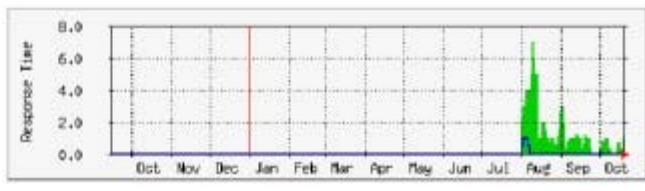
“Wait Queue”

- Initial Response Time in days:

- Monthly

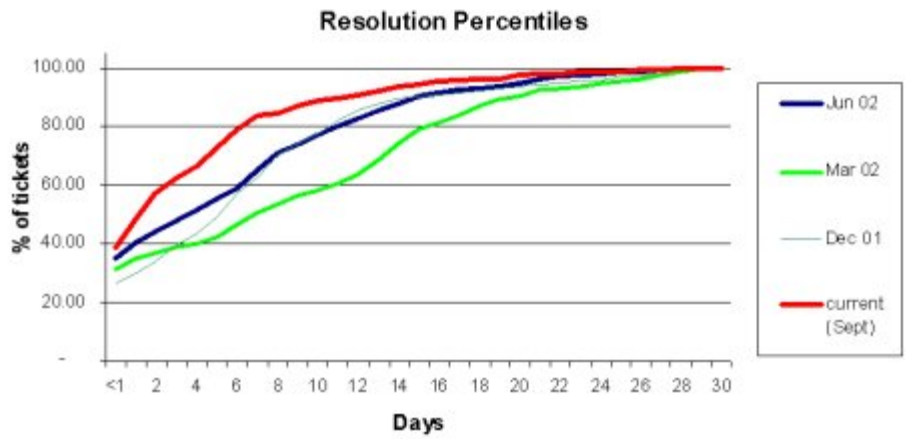


- Yearly





Request Resolution Time





Outline

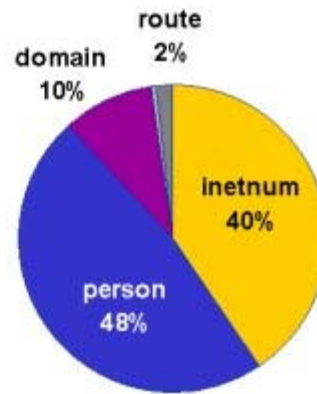
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Database Statistics

- 1.6 M Objects
- Query Rate 18/sec
70% IP
20% domain
- Update Rate 2/min
60 % IP
25 % person
10 % domain





Database Developments

- Security Area
 - New MD5-PW authentication scheme
 - MAIL-FROM auth has been phased out
 - IRT object representing CSIRT
- New prototypes and public releases
 - RPSL object parsing library
 - Interactive updates
 - User friendly web interface for updates
- Documentation
 - DB User Manual
 - “Getting Started” written in co-operation with APNIC
 - Final phase in progress

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Database Projects

- DB Consistency and Statistics project
- Routing Registry Consistency Check
 - Routing Policies vs. Real World
- IRRToolSet support
 - Router Configuration Tools
 - Version 4.7.3 released (mostly bug fixes)
 - Documentation is updated (manual pages and html)





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Test Traffic Measurements

- Number of test-boxes: 87
 - 28/9/2001: 63
 - 2 new/month
- Marketing efforts
 - Glossy
 - Sales talk at RIPE42 and other conferences
 - Direct marketing
 - User survey planned
 - 2 refereed papers accepted at conferences
 - Represented in the IRTF/IMWG and other groups interested in measurements





Test Traffic Measurements

- Hardware developments
 - 1u test-box
 - CDMA clock source, easier deployment in the USA
- Software:
 - Direct access to data and configuration through a web-interface.
 - Public demo: <http://tt01.ripe.net:10259/>
- Presentation of data:
 - Summary pages
 - Trend plots
- New measurements
 - IP Delay Variations (a.k.a. "jitter")
 - Bandwidth (beta)
 - Packet reordering (alpha)
- Full IPv6 support in the next software release (expected 11/2002)





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ICANN / ASO

- **Attended ICANN Meetings**
 - 10-14 March 2002, Accra, Ghana
 - 24-28 June 2002, Bucharest, Romania
 - Represented by other RIR staff this week, Shanghai, China
 - Wilfried Wöber elected for ASO AC (3 yr. term)
- **New ICANN Director (ASO)**
 - Mouhamed Diop (Rob Blokzijl's term expires 12/2002)
- **ICANN Contract negotiations "finished" but...**





ICANN Reform

- RIR contracts converging (Feb 2002)
- ICANN reform proposal (24 Feb 2002)
- RIPE NCC reaction (1 Mar 2002)
- Two Joint RIR Statements
 - 25 Apr and 20 Jun 2002
 - Developed during joint board teleconferences
- Many discussions with ICANN during meetings
- Exchange with ICANN on reform process (13 & 26 Sept 2002)
- ICANN ERC "Final Implementation Report and Recommendations" (02 Oct 2002)
 - Disappointing, ignoring RIR input
- Third Joint RIR Statement & Blueprint (09 Oct 2002)
- Taskforce assembled
 - RIR, ICANN, IAB, AC

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External Communications

- Annual Report 2001 – published
- Outreach activities / RIPE NCC awareness
 - Continued relations with Government and industry players
 - Attendance at related industry events (e.g. IETF, IPv6, ENUM, Telecoms, ...)
- Focus on direct Membership needs





Membership Survey

- Three years since last survey
- Commissioned in May
- Independently conducted
 - Experience with APNIC survey
 - Consultations 1-1 / Open Fora
 - Questionnaire
- <http://www.ripe.net/survey2002/>
- Two Days to Go...





Status Membership Survey

- Individuals met: 153
- Places visited: Amsterdam, Brussels, Frankfurt, Stockholm, Budapest, Dubai, Cairo, Paris, Madrid, London and Moscow
- Good spread of member type & stakeholders
 - Small to large, newcomers & oldtimers
 - Single service provider & telcos
 - Government
- Sessions between 1 and 3 hours
- > 95% "extremely positive" about survey
- A range of issues raised / strong support as well
- Questionnaires in from Germany, UK, France, Italy, Slovakia, Russian Federation, Spain, Ukraine, Bahrain, Hungary, Egypt and Australia





RIR Co-ordination

- IPv6 Policy Implementation – 1 July 2002
- Joint statistics and other publications
- Support for emerging RIRs
 - LACNIC operational
 - AfriNIC preparing training @ RIPE NCC
- Communicate emerging policy proposals globally
- ICANN: Very strong co-ordination on board level throughout the year





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Routing Information Service

- Data collection:
 - 9 Route collectors on 3 continents with 200 peers
 - 140,000 prefixes and 14,500 AS's seen
- Access to the data
 - New queries added based on user feedback:
 - Active prefixes, Martians, Flaps, Black Holes, Unallocated but announced space
 - More options on existing queries
 - Statistics:
 - Black holes, prefix length, AS-type, Single/Multi-homed AS's

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Routing Information Service (2)

- **Research**
 - Our BGP data is very popular with the research community
 - Downloads of data from all over the world
 - Dan Ardelean's thesis at the NCC
 - About a dozen of papers using RIS data accepted at conferences
 - Very useful for future improvements in Internet Routing
- **New products**
 - MyAS: monitoring of AS's and prefixes registered by a LIR
 - Routing Beacons, for flapping studies
 - IPv6 routing table collection, record the early history of native production IPv6 networks for the future





Deployment of Internet Security Infrastructure

- Focused on DNSSEC
- Working towards deployment on the inaddr.arpa tree
 - First early zones early 2003,
 - Routine Q2/Q3 2003
- Heavily involved in DNSSEC protocol development
 - 2 IETF Internet drafts from the NCC
 - Hosted a testing/deployment workshop January 2002
 - Participated in 3 other deployment workshops
- Training course for LIR's
 - Trail runs in 2001/2002
 - One course/month since then





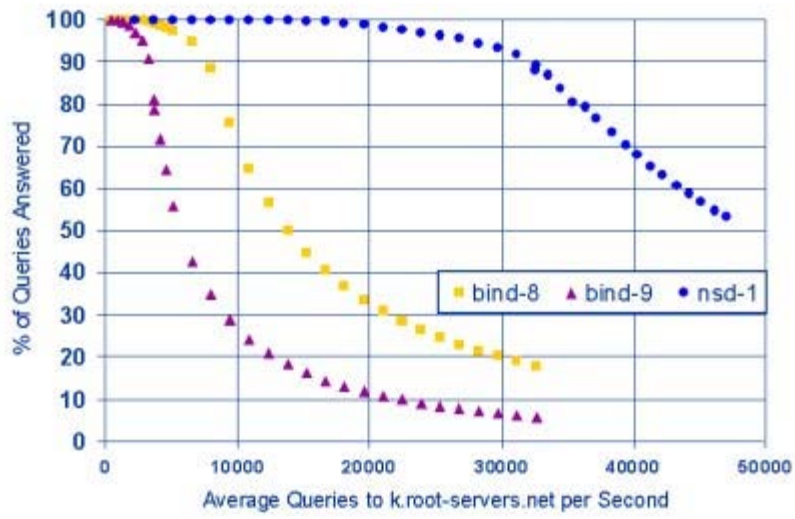
NSD

- Authoritative-Only DNS Name Server
 - No recursion
 - No caching
 - No dynamic update
 - No zone transfers
- Motivation:
Code Diversity in High Level DNS Servers
- Implemented from scratch in co-operation with NLnet Labs
- High Performance Design
- DNSSec Ready
- Well Tested (Purpose Built DNS Test Lab)
- <http://www.nlnetlabs.nl/nsd/>





Performance Results





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RIPE NCC Next Steps

- Re-Shape Registration Services (18 months)
- Launch Secure Web Portal
- Take in Survey Results & Plan Actions
- Continue Outreach
- ICANN...





RIPE NCC Priorities

- Ensure and further improve stable, reliable and high quality services
- Respond to members needs and propose and develop services as needed
- Maintain RIPE NCC and RIPE awareness





Questions and Answers



<http://www.ripe.net/ripencc/about/agm/agm2002/>



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