

# **RIPE NCC DNS Update**

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### **Meet the Team**



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#### **Our Services**

- K-root
- Reverse DNS for IPv4 and IPv6 allocations
- Secondary DNS for some ccTLDs
- Operations of the ENUM (e164.arpa) zone
- An AS112 node
- DNS Security (signed reverse and forward zones)
- RIPE NCC internal services (management of ripe.net and related zones)



#### K-root

- Co-operation with AfriNIC
  - New baby in the family Dar es Salaam
  - More nodes planned (Maputo, Kampala)
- Frankfurt upgraded to global status
- Software updates
  - OS security and stability updates
  - NSD 3



#### **K-root Future Plans**

- Possible expansion into Latin America
  - Co-operation with LACNIC
- Preparation for signed zones
  - arpa by 1 December 2009
  - root zone by July 2010
- Replacement of aging hardware
- IPv6 service from more instances



## **Lameness Project**

- Fixed a bug in the contact lookup code
  - zone-c and tech-c
  - Fall back to mnt-by
- We run monthly checks
  - Results published on the RIPE NCC website
  - Lower alert frequency
- Over 1,000,000 (zone, nameserver) pairs checked
  - Around 5.5% lame



# Child Zone Delegation in Reverse DNS

- 15332 /24 domain objects with /16 parents in the RIPE Database
- RIPE NCC cannot delegate below zone cut
  - Provisioning system ignores 15332 objects
  - Users are confused



## **Example**

- 192.94.in-addr.arpa exists in the RIPE DB
  - Delegated to server A, B and C
- 119.192.94.in-addr.arpa also exists in the RIPE DB
  - Delegated to servers D and E
  - Ignored by the provisioning system!
  - Causes confusion
- Action item with Database WG to disallow this, and remove existing objects



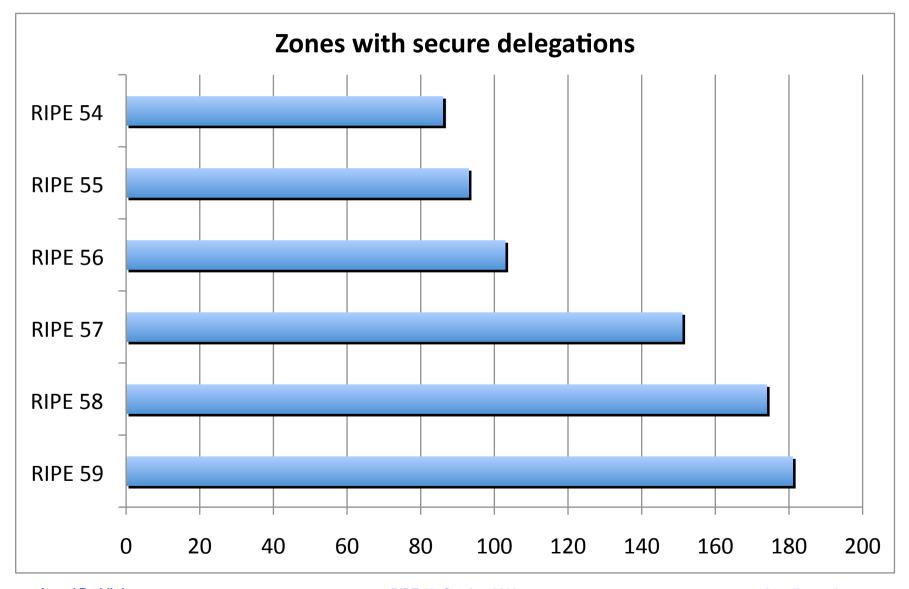
#### RIPE NCC's trust anchors and DLV

- Trust anchors still in DLV
  - ISC believes this helps DNSSEC deployment
- We are satisfied that ISC makes every effort to ensure smooth and timely import of keys
- However, we recommend that users continue to use the trust anchors published on the RIPE NCC website

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## **DNSSEC Growth in Reverse DNS**





#### **DS Record Lameness**

- Of the 181 zones with secure delegations
  - 38 have **no** DNSKEY records
  - 2 have **different** DNSKEY records
- Validating resolvers cannot resolve these zones
- Regular checks as part of the lameness project
- Periodic alerts to zone administrators



#### **DNSSEC Infrastructure**

- Signer replacement
  - New FIPS level III certified signer
  - Secure racks and co-location
  - Review of operating procedures
- Sign using both signers during the transition
  - No changes to our current key policies
- Website improvements
  - Simpler documentation
  - Easier to find trust anchors



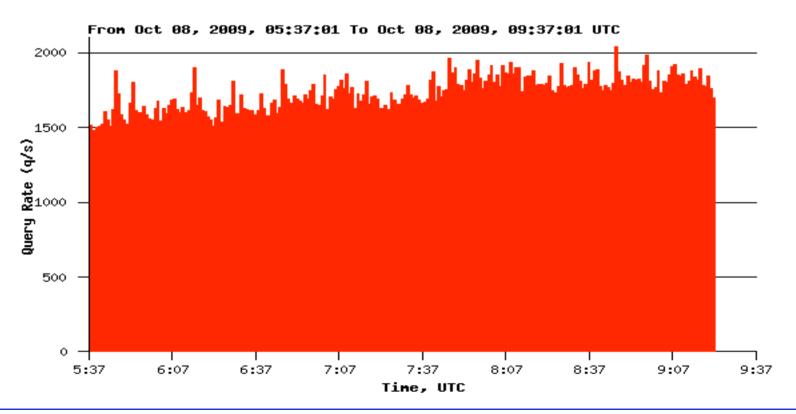
#### **ENUM**

- 1 new delegation since RIPE 58
  - 962 (Jordan)
- 3 zones are signed
  - Poland
  - Czech Republic
  - The Netherlands (secure delegation coming soon)



#### **AS112**

- Answers reverse DNS queries for RFC 1918 address space
- New hardware and OS for the node at AMS-IX



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# **Questions?**

