RIPE NCC DNS Update

Presented by
Andrei Robachevsky
CTO
RIPE NCC

Overview

- Introduction
- Reverse DNS
  - Stats
  - /16 policy
- K Root
- Lameness checking
- Secondary service for ccTLDs
  - +1, -5
- Future plans

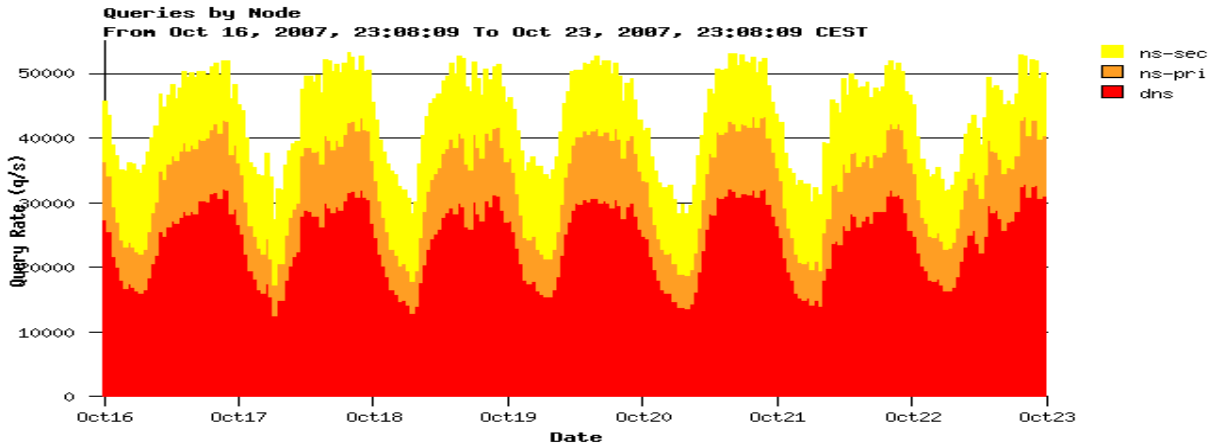
DNS Group

- DNS Group Manager - vacant
- K Root/AS112 – Anand Buddhev
- Auth Services/DNSSEC – Sjoerd Oostdijck

- Issues and problems to dns-help@ripe.net

Reverse DNS

- A day in the life of reverse DNS

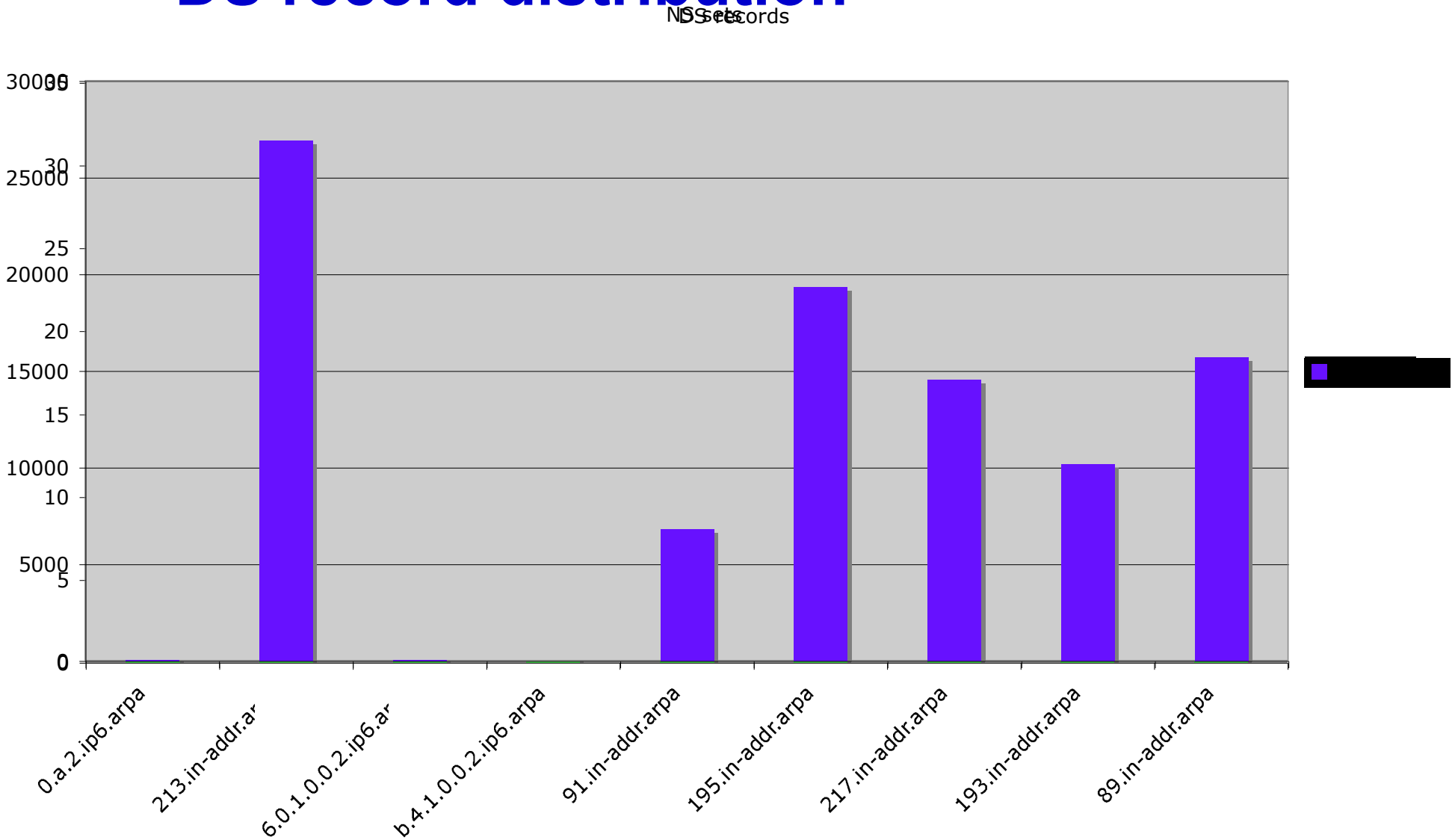


- ns.ripe.net as a secondary server for reverse delegations
  - Inconsistency between IPv4 an IPv6
    - IPv4:If your zone is a /16 **we require** ns.ripe.net as a secondary.
    - IPv6:If your zone is a /32 **you may** use ns.ripe.net as a secondary
  - Proposal was made at RIPE54
  - The WG agreed to make it optional in both cases
  - This was implemented on 19 September

dnssec statistics

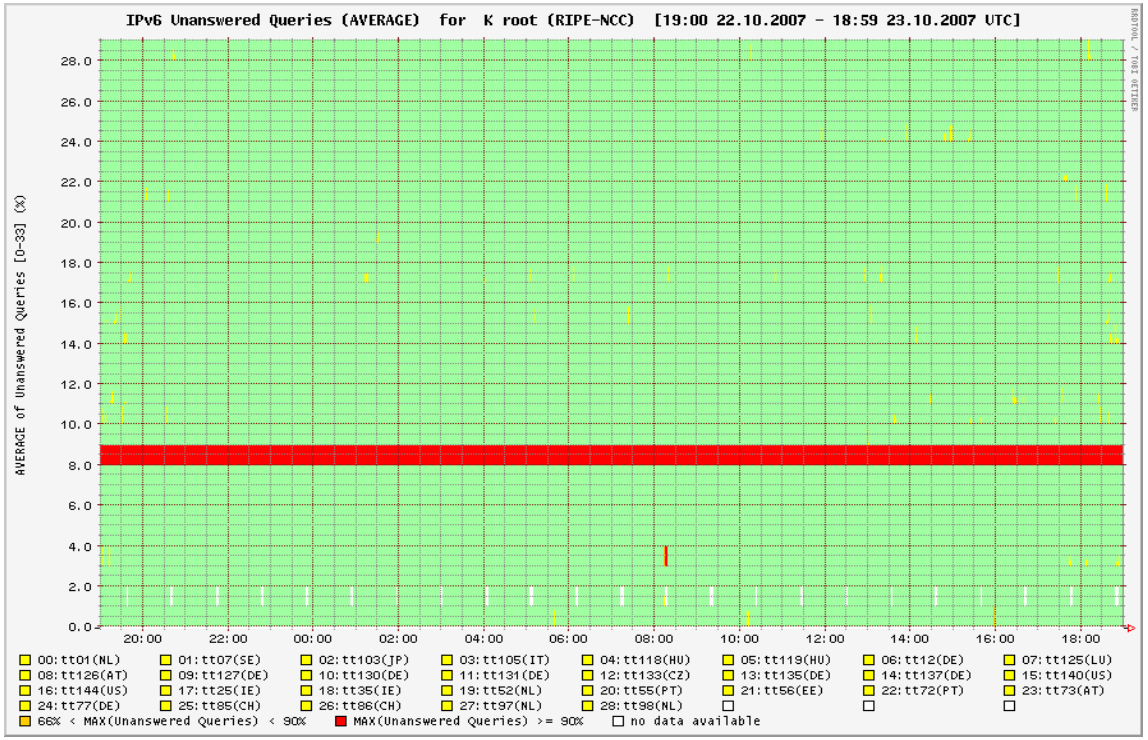
- Totals at RIPE 54
  - Total primary zones 126
  - Signed zones 72
  - NS Records 565088 (241977 sets) (7% increase)
  - DS Records 88 (44% increase)
- Totals at RIPE 55
  - Total primary zones 127
  - Signed zones 62
  - NS Records 690419 (295103 sets) (22% increase)
  - DS Records 96 (9% increase)

DS record distribution



K Root Update

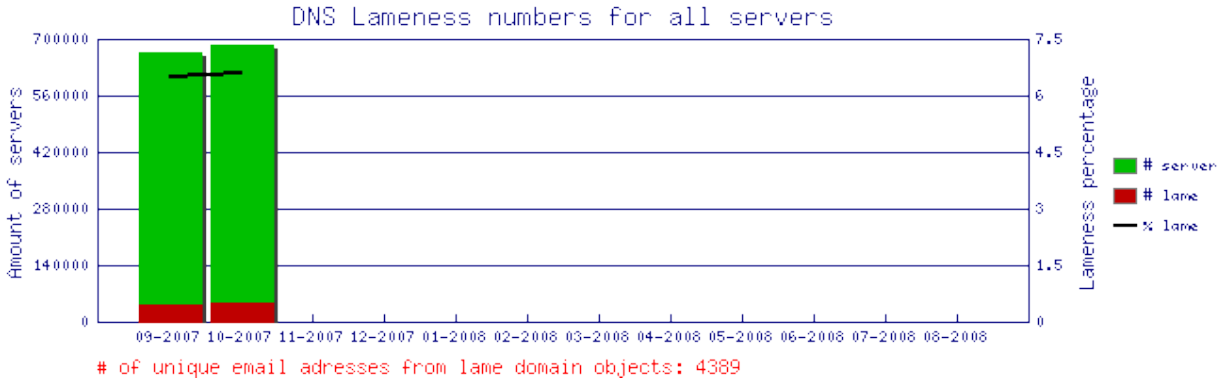
- Rolling out new OS to all K-root nodes
- Ongoing hardware and support upgrades
- Production IPv6 support



Lameness Checking Project

- The first phase has been completed
  - First 2 runs are done
  - Statistics reported at http://www.ripe.net/info/stats/dns-lameness/index.html
  - No notifications are sent
- Prototype shows …..

Lamness checks: 2 runs

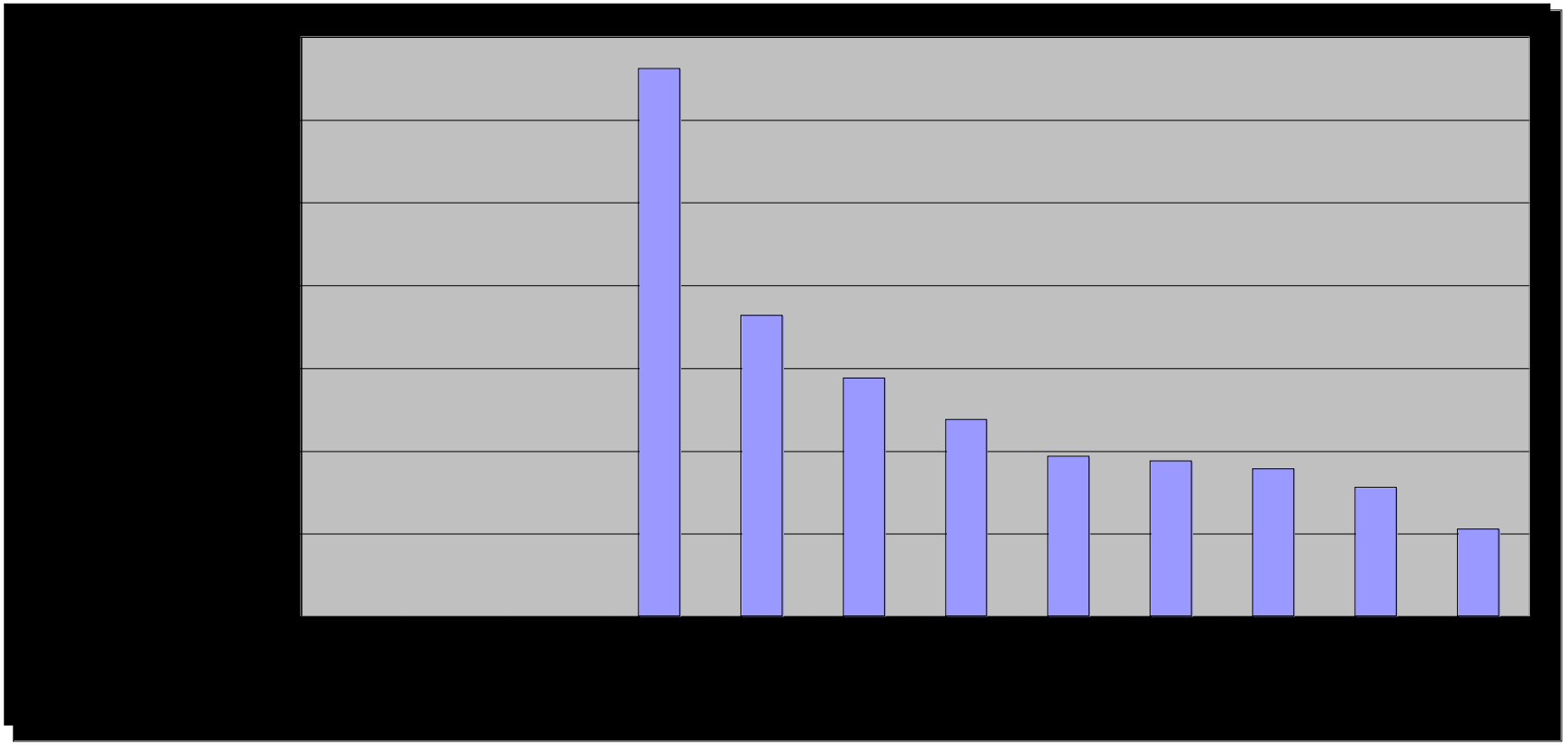


- Average shows 6.5% and it grows
- Min 0.26% (90.in-addr.arpa)
- Max 16% (194.in-addr.arpa)
- 4389 unique contacts for notifications
- Next step: Start sending notifications
  - not only notifications, but also tips how to easily fix.

Secondary service for ccTLDs

- Background
  - RIPE NCC offers secondary DNS service to ccTLDs on best effort basis free of charge since early 90's
  - Conditions have changed, potential competition with members
  - Still DNS stability is of paramount importance
- We asked 5 well established operators to consider moving the service from the RIPE NCC
  - Discussed each individual case and allowed careful planning
  - All five: DE, NL, AT, AU and IT have migrated
  - Thank you for cooperation!

Zone distribution (as of October 2007)



Zone size in bytes

Future Plans

- Continue with HW and support upgrades
- Finalise lameness checking
  - Implement notifications
  - Continue running and report
- Implementing DNSSEC in e164.arpa zone
  - Separate presentation in the ENUM-WG on Thursday

Questions?