



# RIPE NCC DNS Update

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# The Team





# Our Services

- K-root
- Reverse DNS
- Secondary DNS for some ccTLDs
- ENUM
- AS112
- DNSSEC
- RIPE NCC Internal Services



# K-root

- DURZ readiness
  - Server and network limit testing with NLNet Labs
  - Bandwidth upgrades
  - NSD 3.2.4 (TCP and EDNS buffer size tuning)
- Data collection & Analysis
  - DITL-style
  - Priming queries
- Public outreach and awareness
  - Articles on RIPE Labs
  - Reply-size tester



# Reply-size Tester



For more information see: <http://k.root-servers.org/replysizetest>



## Test results

for resolver: 193.0.19.6

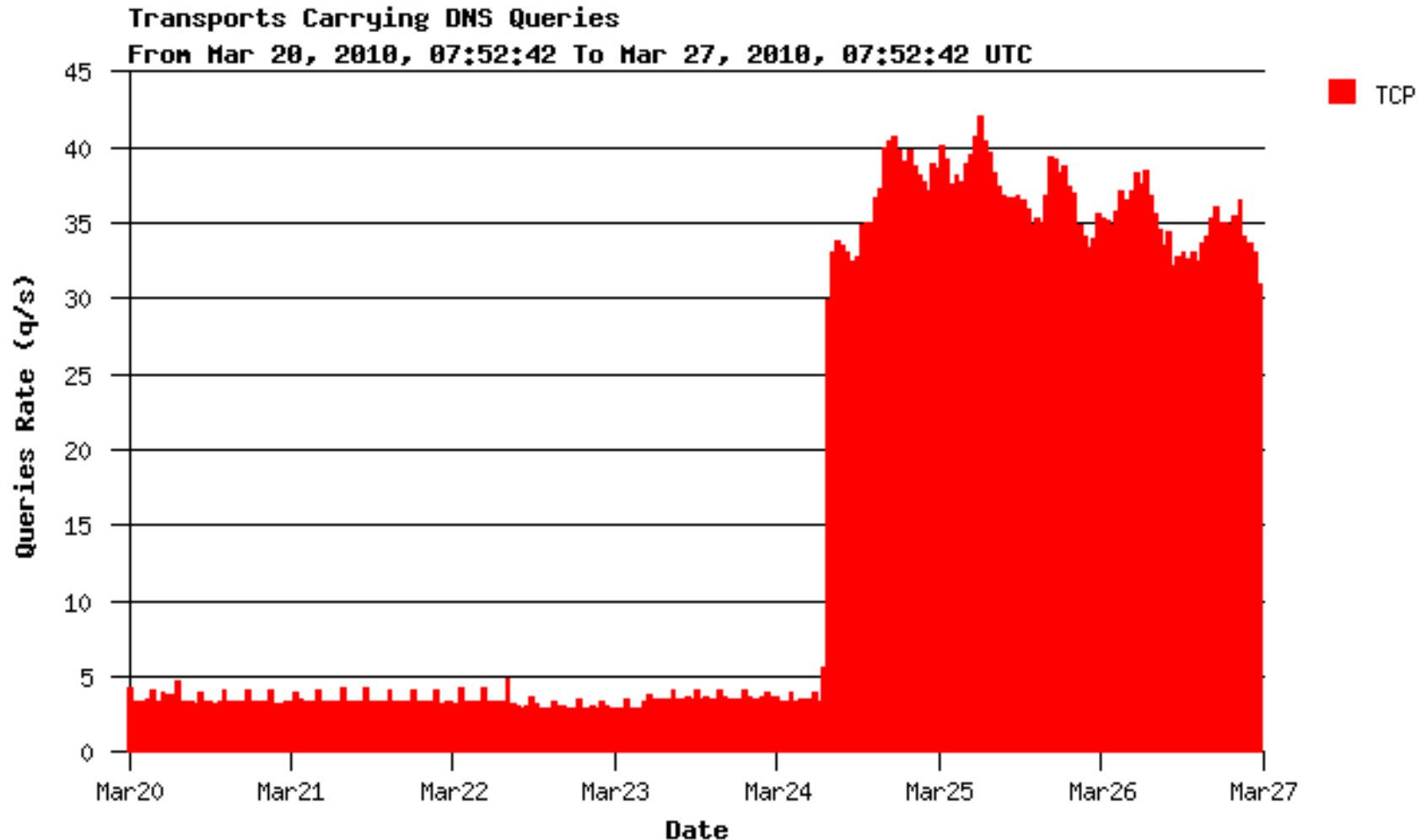
**Announced buffer size:** 4096 bytes  
**Measured buffer size:** 3839 bytes  
**EDNS enabled:** yes  
**DNSSEC enabled:** yes

Your resolver announced a buffer size bigger than the largest packet that it can receive.

Note: There will always be a difference between the announced and measured buffer size because of the algorithm used. However this difference should not exceed 300 bytes.

For detailed explanations about these messages see: <http://k.root-servers.org/replysizetest>

# TCP Queries after DURZ Rollout





# K-root Expansion

- Co-operation with AfriNIC
  - Dar es Salaam in 2008
  - More instances later this year
- Possible expansion into Latin America
- A few more local instances in the RIPE NCC region



# DNSSEC (Current)

- RIPE NCC zones signed since 2005
- Old signer infrastructure
  - “Bump in the wire” model
  - Regular Linux servers
  - Perl-based key management tools
  - No support for secure key storage
  - Manual processes – prone to human error
- Frequent key rollovers





# DNSSEC (Future)

- New signers from Secure64
- “Bump in the wire” model
  - Zone transfers into and out of the signers
- KSK rollover in progress
  - Pre-publishing required for the switch
  - New keys introduced on 23 March 2010
  - New keys become active on 14 June 2010
- New DNSSEC Practices Statement
  - Review all policies and procedures
  - Reconsider key lifetimes



# DNS Infrastructure Improvements

- New Autonomous System (ASN 197000)
- Multi-server architecture for redundancy
- Serve **in-addr.arpa**, **ip6.arpa** and all of the RIPE NCC's forward and reverse zones
- First site is operational at AMS-IX
- A second site is planned for Q4 2010



# ENUM

- Two new delegations since RIPE 59
  - Malaysia (February 2010)
  - Ukraine (April 2010)
- Voxbone (8835100) approved but not yet delegated
- Signed zones
  - Poland
  - Czech Republic
  - The Netherlands
  - Lithuania



# Provisioning System


- New provisioning software to replace legacy
- Support for glue and DS records for ERX address space
- Improvements to delegation checker
  - Fix some IPv6 issues
  - Allow pre-publishing of DS record

# DNS Lameness Data in Netsense

Prefix †    First Seen †    Last Update †    +

**This prefix is not announced.**

78.102.24.0/24 is not announced at this moment.



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**DNS Lameness** ▶

Don't Filter |  All Issues |  Only Errors

**Routing Consistency**

| Prefix †       | DNS Lameness † | Status †   |
|----------------|----------------|------------|
| 78.102.24.0/24 | Found 2 Errors | Lameness X |

# Questions?

