RIPE NCC DNS Update

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K-root

- Service stable with 17 instances
  - 5 global
  - 12 local (prefixes announced with NO_EXPORT)
- Around 20,000 q/s on average
- More information at http://k.root-servers.org/

K-root member instances

- An idea in development
- Small, single-server instances
- Service for a member network and its customers
- Virtual server, perhaps sharing a physical host with an Atlas anchor
- More information later this year

Other DNS services

- Anycast cluster with two sites
- 5170 zones
  - ripe.net
  - e164.arpa
  - IPv4 and IPv6 reverse zones
  - ns.ripe.net
  - several ccTLDs
  - various other small zones
- 120,000 q/s on average, with peaks of 180,000

Other DNS services

- Third site this year
- Server upgrades
  - Extra RAM for increasing zone sizes (DNSSEC)
- All servers running BIND 9
  - We are considering diversity with NSD 4 and Knot

DNSSEC

- 125 signed zones
- All except for three have chains of trust
- Uneventful KSK roll-over in November 2012
- 787 secure delegations (641 at RIPE 65)
- Some DNSCurve-style delegations
  - nserver: uz53mlpjxf12mg…
  - nserver: uz5j8kz3j7blzw…

ENUM (e164.arpa)

- 52 delegations (no change since RIPE 65)
- 6 signed delegations
- Around 5 q/s at our server

New DNSMON

- Measurements using Atlas probes
  - Anchors and a random selection of user probes
- Control panel to define:
  - Zone
  - Name servers and IP addresses
  - Query types (SOA, hostname.bind, id.server)
  - Transport (UDP, TCP)
  - Traceroutes
  - NSID (RFC 5001)

New DNSMON

- Better graphs
- Raw data available
  - Atlas user-defined measurement
- http://roadmap.ripe.net/dnsmon/
- Pilot in Q3 2013 with some users
- Production planned for Q4 2013
- Current DNSMON is still running as a service

DNSMON control panel step 1

You are here: Home > Data & Tools > DNSMON

Home | Welcome Andreas Strikos | Logout

1. Domain → 2. Servers → 2. Measurements → 3. Confirmation

- If you enter a domain below:
  - it will be used for SOA record measurements that you specify.
  - we will automatically try to work out which nameservers to target.
  - you will be able to remove automatic nameservers and add custom ones.
- If you *don't* enter a domain below:
  - you will be asked to specify nameservers manually.
  - you will not be able to specify SOA measurements.

Domain: se

Next

DNSMON control panel step 2

1. Domain | **2. Servers** | 2. Measurements | 3. Confirmation

- The following servers will be used as the measurement targets.
- You can add custom servers using the "Add" button.
- You need at least one server to start measurements.

Server	Hostname	Include?
81.228.8.16	d.ns.se.	☑
81.228.10.57	e.ns.se.	☑
130.239.5.114	g.ns.se.	☑
192.36.133.107	b.ns.se.	☑
192.36.135.107	c.ns.se.	☑
192.36.144.107	a.ns.se.	☑
192.71.53.53	f.ns.se.	☑
194.146.106.22	i.ns.se.	☑
199.254.63.1	j.ns.se.	☑
2001:500:2c::1	j.ns.se.	☑
2001:67c:1010:5::53	i.ns.se.	☑
2001:67c:254c:301::53	b.ns.se.	☑
2001:67c:2554:301::53	c.ns.se.	☑
2001:6b0:e:3::1	g.ns.se.	☑
2a01:3f0:0:301::53	a.ns.se.	☑
2a01:3f0:0:305::53	f.ns.se.	☑

(custom server) Add

DNSMON control panel step 3

1. Domain | 2. Servers | **2. Measurements** | 3. Confirmation

Measurement Type	Protocol	Enabled	NSID Support	Frequency (seconds per measurement)
ID.SERVER	UDP	☑	☐	3600
HOSTNAME.BIND	UDP	☑	☐	60
SOA	UDP	☑	☐	300
SOA	TCP	☑	☐	300
Traceroute	ICMP	☑		300

Number of Probes: 5

First | Previous | Next

DNSMON control panel step 4

1. Domain → 2. Servers → 2. Measurements → **3. Confirmation**

By clicking "Confirm" below you will create the following measurements:

- SOA (UDP)
- HOSTNAME.BIND (UDP)
- ID.SERVER (UDP)
- SOA (TCP)
- Traceroute (ICMP)

using 5 probes, targetting the following servers:

- 81.228.8.16
- 81.228.10.57
- 130.239.5.114
- 192.36.133.107
- 192.36.135.107
- 192.36.144.107

Questions?