

RIPE NCC DNS Update

Anand Buddhdev
DNS Services Manager



The Team



Our Services

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

Reverse DNS

- First anycast instance operational at AMS-IX
 - ASN 197000
 - Serves in-addr.arpa, ip6.arpa and all of the RIPE NCC's forward and reverse zones
- Second anycast instance to go live at LINX in December 2010

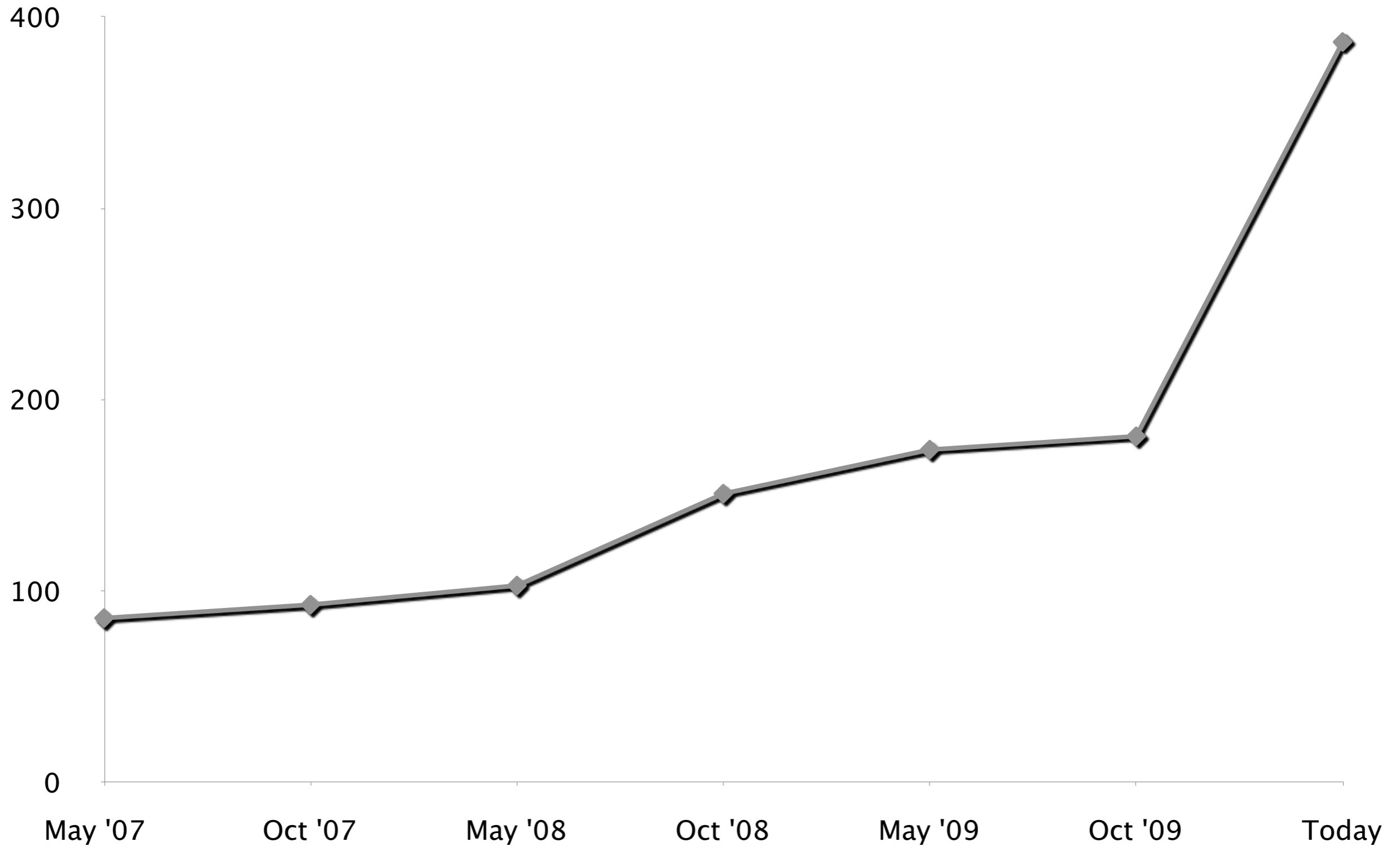
Provisioning System

- New software in December 2010
 - Depends on RIPE Database WG action #59.1
- Upcoming features:
 - Co-ordination with other RIRs for glue and DS records for ERX address space
 - Support for range notation (x-y.b.a.in-addr.arpa)
 - Support for RFC 2317 delegation
 - Improvements to delegation checker

DNSSEC

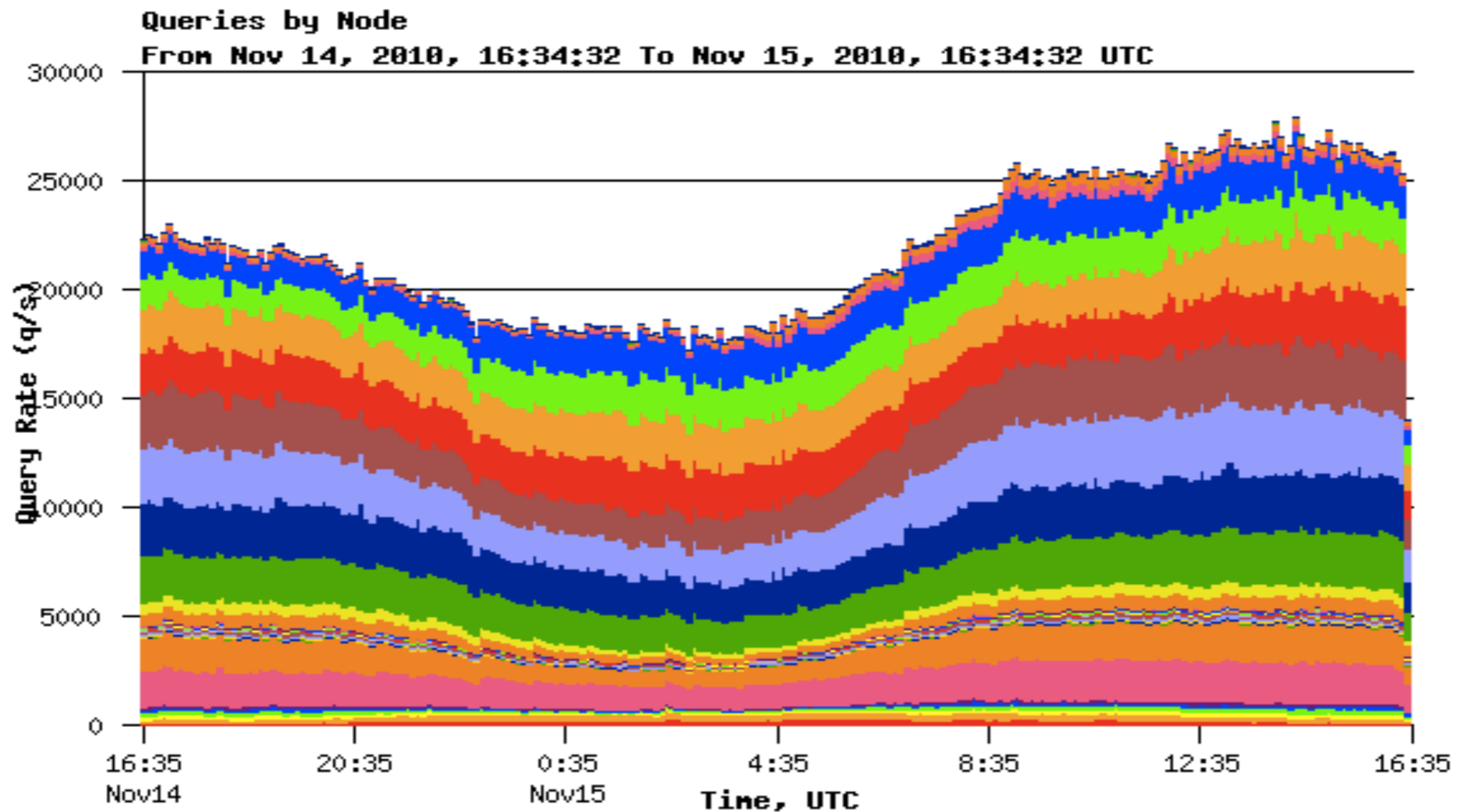
- Secure64 signers in production since June 2010
 - FIPS 140-2 level 2 certified
- Updated DNSSEC Policy and Practice Statement (DPS)
 - <http://www.ripe.net/rs/reverse/dnssec/dps.html>
- First KSK roll-over in September had issues
 - Signatures with an inception date of 1 January 1970 due to a software bug
 - KSK roll-over was delayed until October

DNSSEC in Reverse DNS

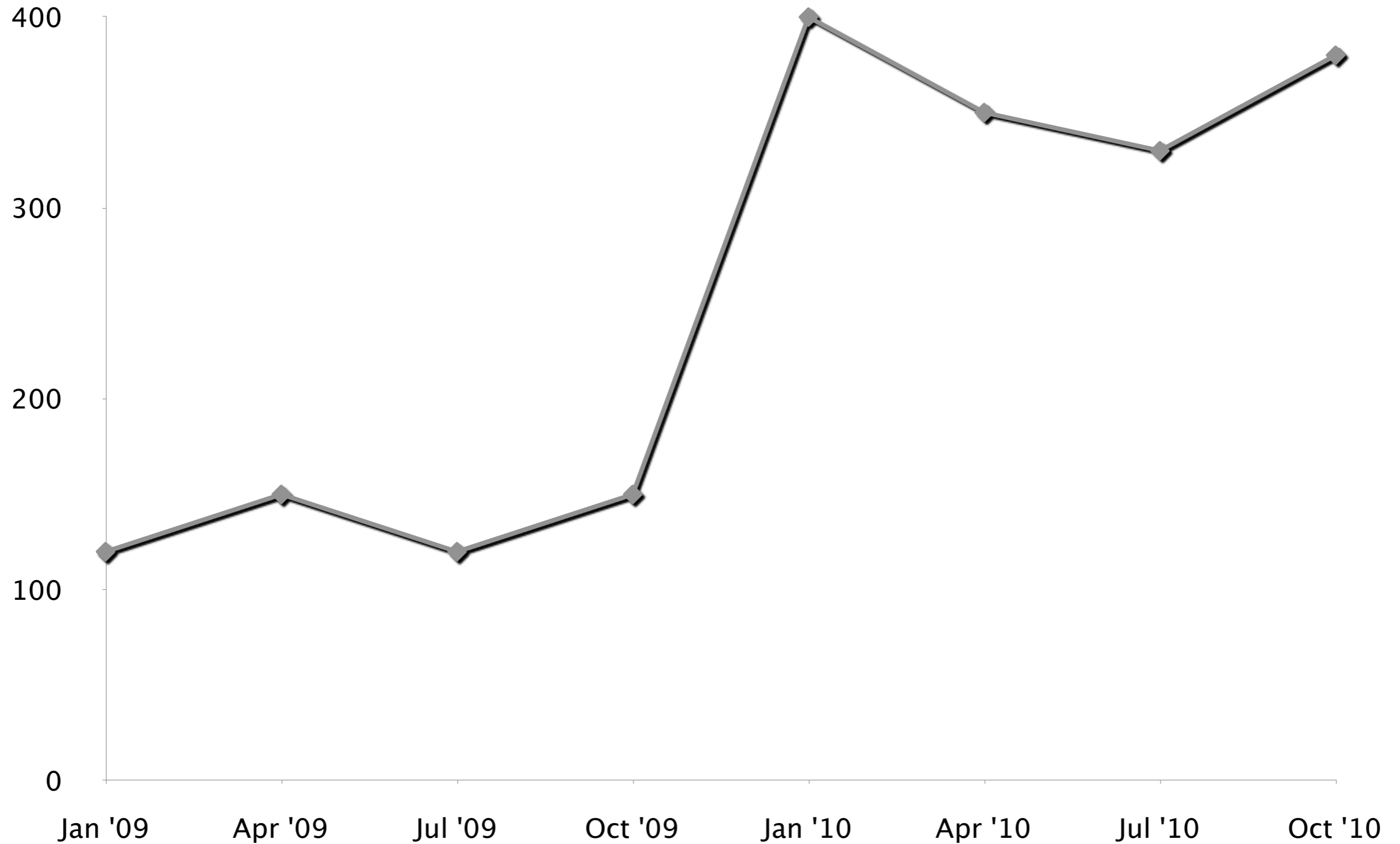


K-root

- Operations stable with 18 instances



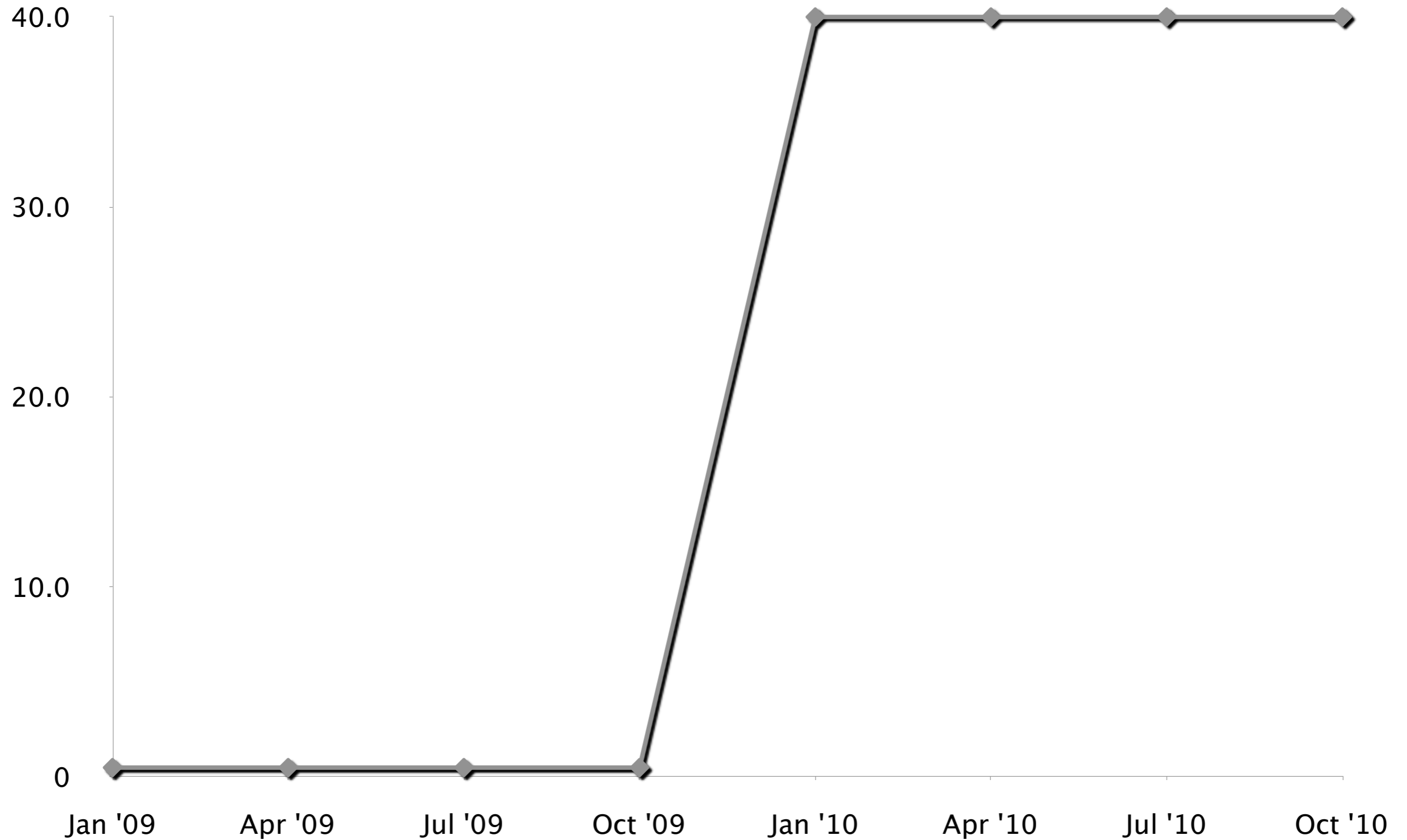
2001:7fd::1



K-root with DNSSEC

- Outbound traffic up by 30%
- Current outbound bandwidth is 80 Mbit/s with peaks up to 120 Mbit/s
- No significant TCP traffic

K-root and TCP



Future Plans

- Continuous pcap data collection from all K-root instances
 - Analyse data on Hadoop-based clusters
- New K-root local instances
 - Cape Town (together with AfriNIC), Kiev
- Global nodes
 - Expand footprint to cover under-represented regions
 - Trying to determine suitable locations

Questions?

