K-Root Name Server Operations

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K-root Milestones

- ## Operated by RIPE NCC since May 1997
  - Hosted by LINX in London

- ## Running NSD since February 2003
  - Increased software diversity and performance

- ## Anycast since July 2003
  - Two global instances: London and Amsterdam

- ## Wider anycast deployment (2004)
  - Local nodes (deployment)
  - Nodes outside the RIPE NCC region (investigation)

Current Status

- **2 global instances**
  - London and Amsterdam

- **Available via IPv6 @ 2001:7fd::1**
  - Global instance in Amsterdam

- **Four "local" nodes are deployed**
  - Objective is to improve service for local ISP communities in the RIPE NCC region
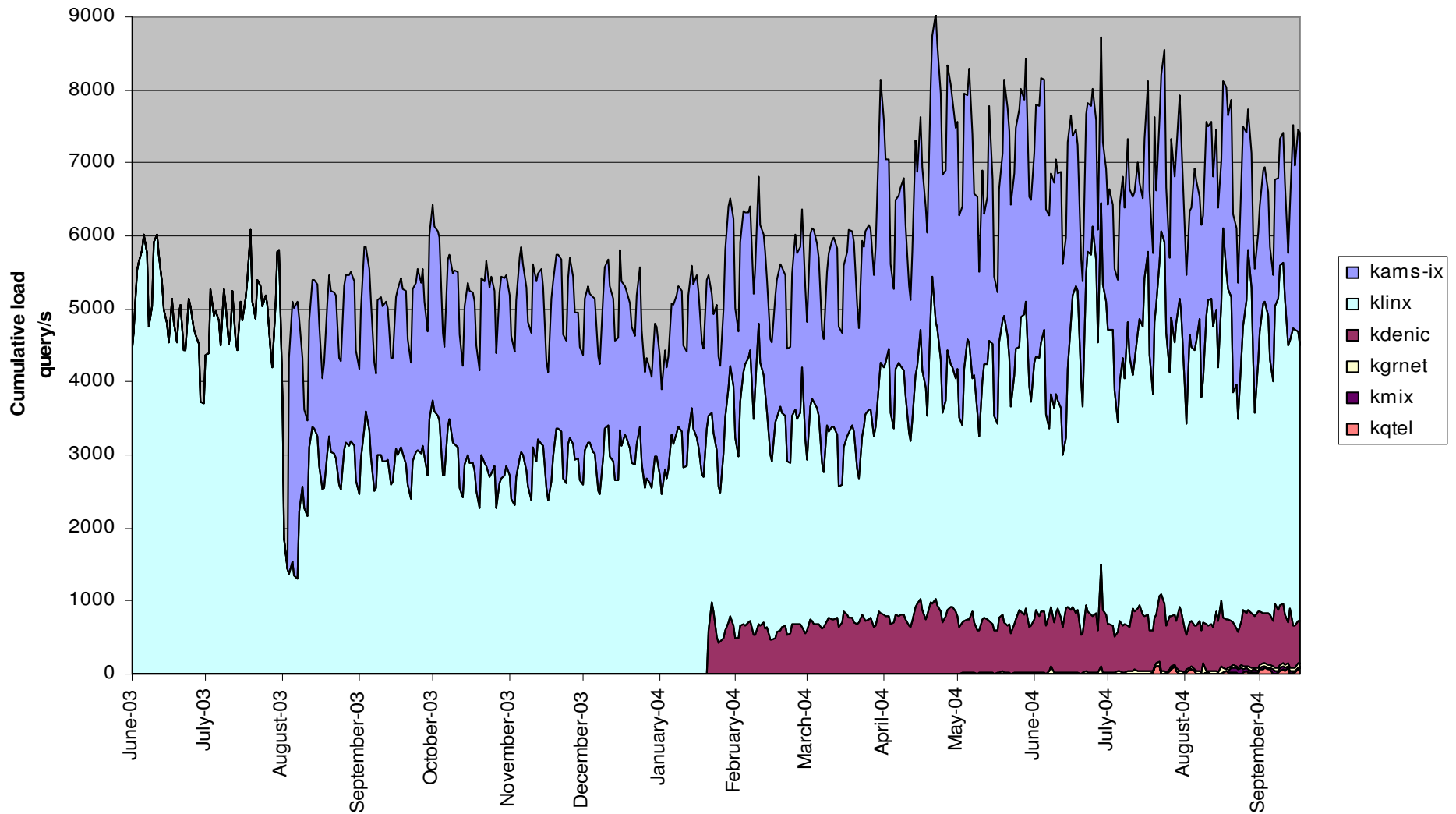 - Latest developments: Qatar (Doha) and Italy (Milan)
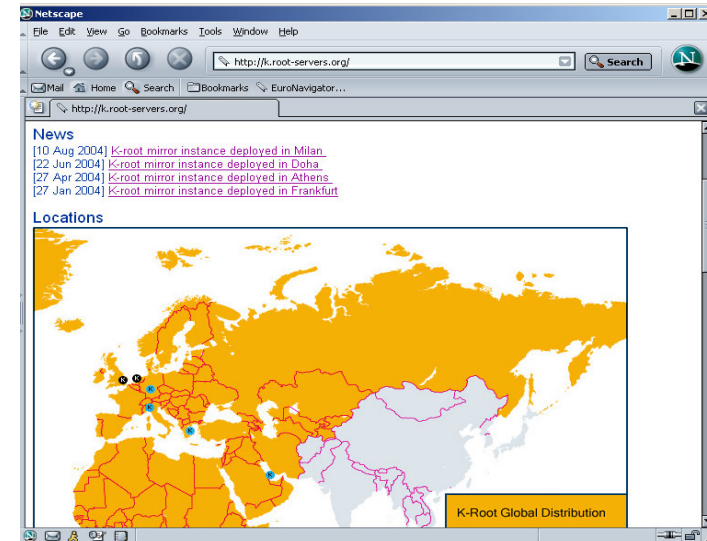
Future Plans

- ## Deployment of local nodes
  - Iceland, Finland, Hungary, Poland, Russia, Switzerland, UAE

- ## Nodes outside the RIPE NCC region
  - Objective is to improve global service resilience
  - Ideally located at topologically equidistant places
  - The same management model as for local nodes
  - Different funding model
  - Looking for 3-5 locations in Asia and the Americas
    - AP in cooperation with APNIC

K-root Statistics (Cumulative Load)

More Information

- ## Root operators
  - http://www.root-servers.org
  - http://[a-m].root-servers.org
    - http://dnsmon.ripe.net
- ## Root server analysis
  - http://www.caida.org/projects/dns-analysis/
- ## Anycasting
  - Host Anycasting Service, RFC1546, http://www.ietf.org/rfc/rfc1546.txt
  - Distributing Authoritative Name Servers via Shared Unicast Addresses. RFC3258, http://www.ietf.org/rfc/rfc3258.txt

More Information (cont.)

- K-root
  - http://k.root-servers.org

- K-root anycasting
  - Distributing K-Root Service by Anycast Routing of 193.0.14.129, RIPE- 268, http://www.ripe.net/ripe/docs/ripe-268.html
  - General Requirements and Guidelines, http://k.root-servers.org/hosting-guidelines-200311.html
  - Contact at k-anycast@ripe.net

http://www.ripe.net/presentations