



RIPE Database Operations Update

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Outline

- Departmental Changes
- Operations
 - Support (RIPE DBM)
 - Service
- Statistics
- Development



Departmental Changes

- Formerly:
 - Software Department (a.k.a. “Softies”), 7 developers
 - Database Department, 5 developers
- Now:
 - Software Engineering Department
- What we do:
 - Registration Services software
 - LIR Portal
 - ... and the Database!

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Support (RIPE DBM)

Can Bican



Denis Walker



Katie Petrusha



Ingrid Wijte

Engin Gündüz



Alex Bassi

Gert van Velzen

Oleg Muravskiy

Timur Bakeyev

Flora Robin

Kevin Baker

Peter Banik

Ziya Suzen



Recent RIPE DBM Activity

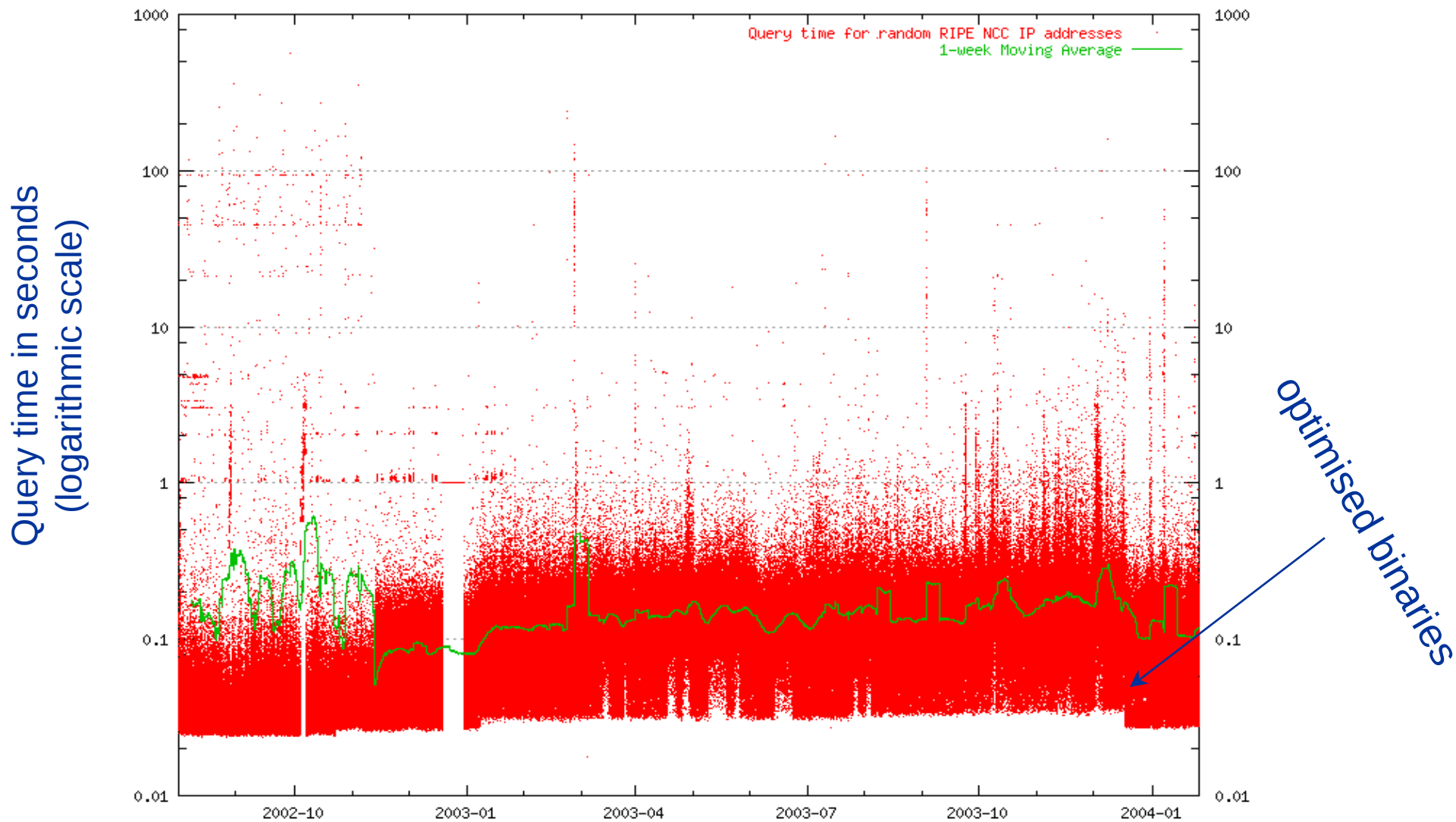
- New RIPE DBM setup
 - RIPE DBM shared by 2 people each week
 - Hostmaster still handling 1 day per week
 - Should be no change in service!
- Ticket load
 - About 85/workday
 - Does *not* include 80% of e-mails that are spam filtered
 - Now auto-respond with ticket number
- Contact address for various cleanup activities
 - Reverse DNS

ripe-dbm@ripe.net is an open, general help mailbox

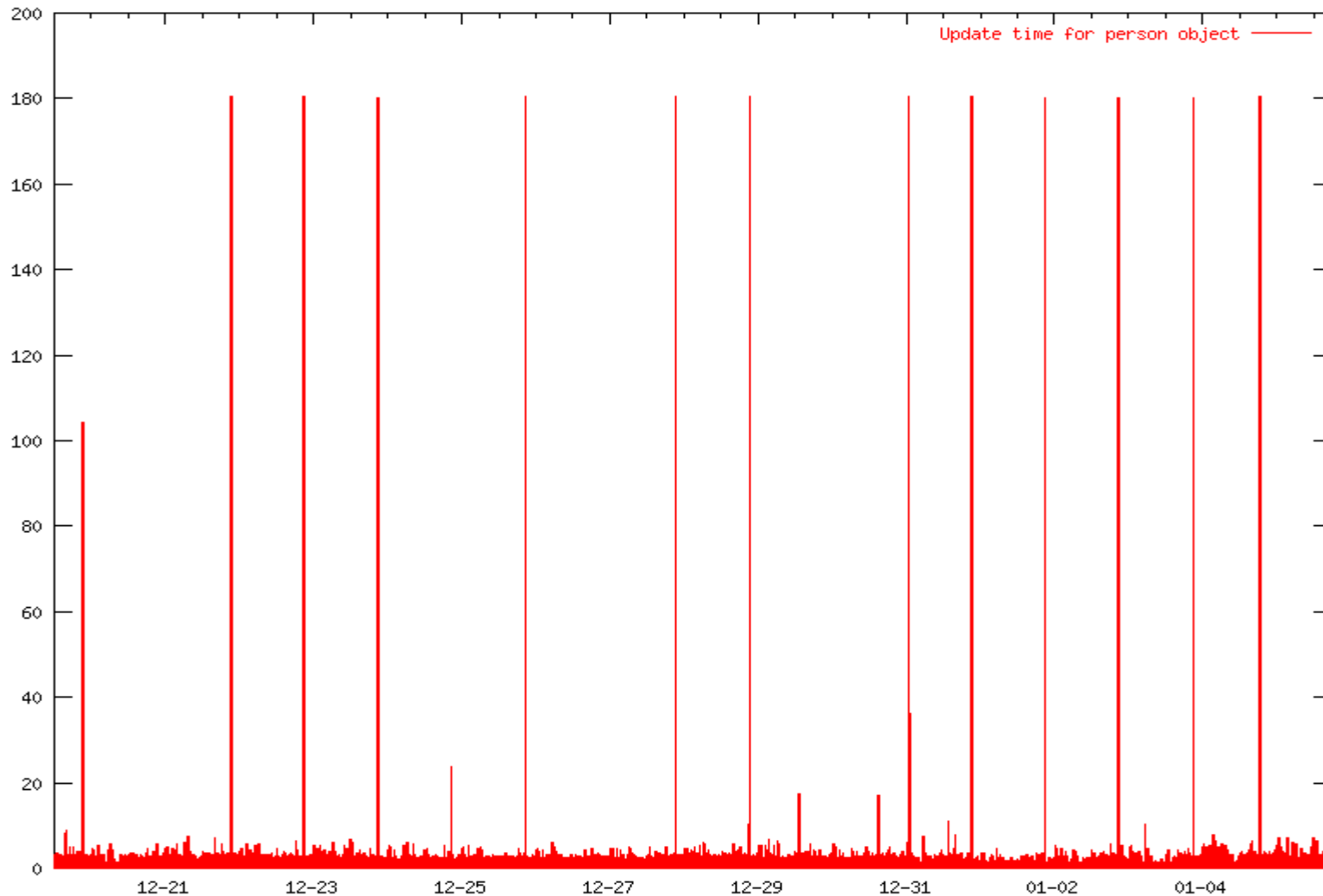
Database Service

- MySQL 4.0
 - Nightly backups/snapshots no longer pause updates
- gcc 3.3.2
 - Optimised binaries can be debugged
- Response times still well under 1 second
- Clustering planned for 2004

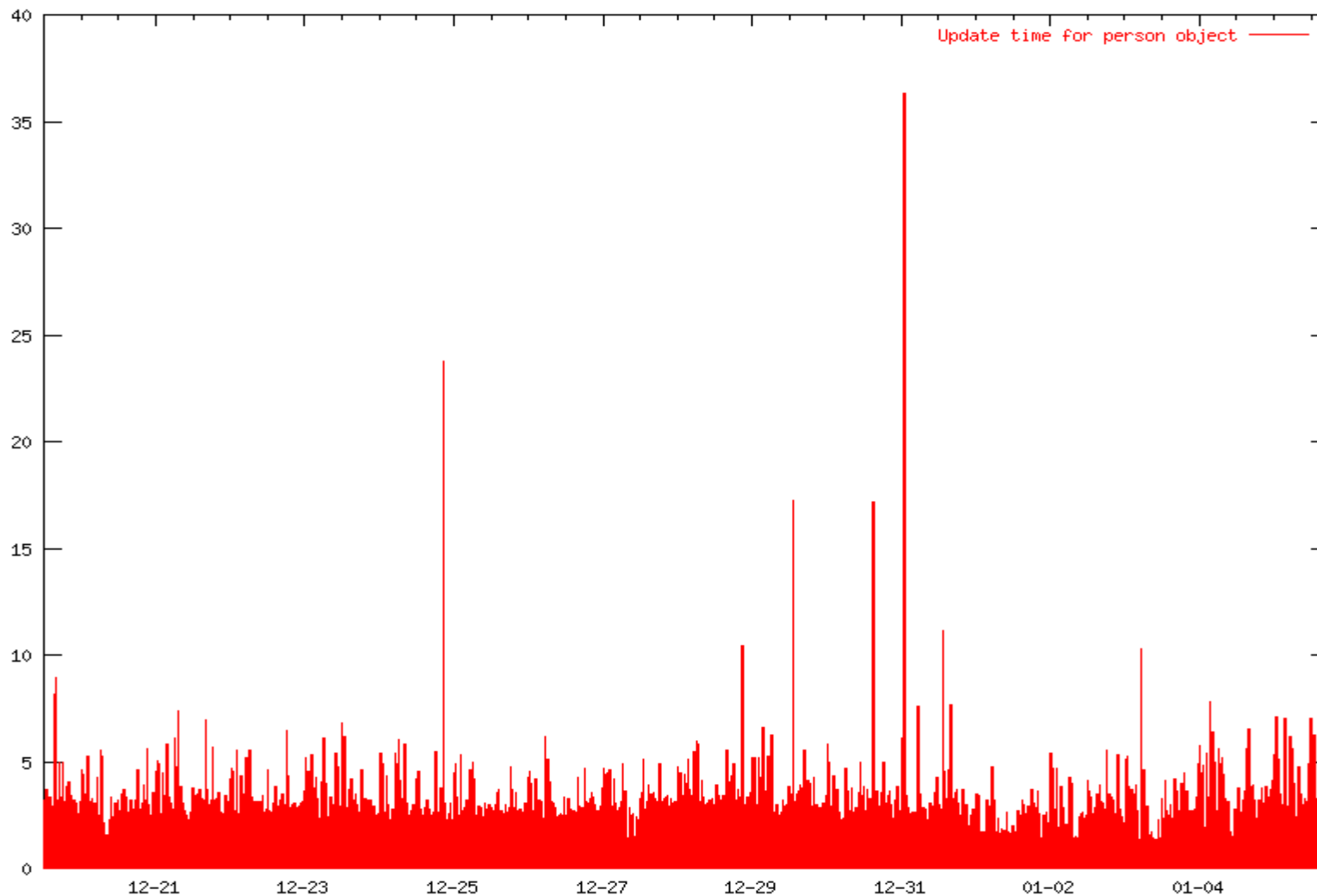
Query Responsiveness



Update Responsiveness: Timeouts!



Update Responsiveness: Timeouts Removed



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Database Facts and Figures

- 2 million objects, 49% inetnum, 42% person
- 29 queries/second on average
- 2.3 updates/minute, 68% inetnum, 24% person

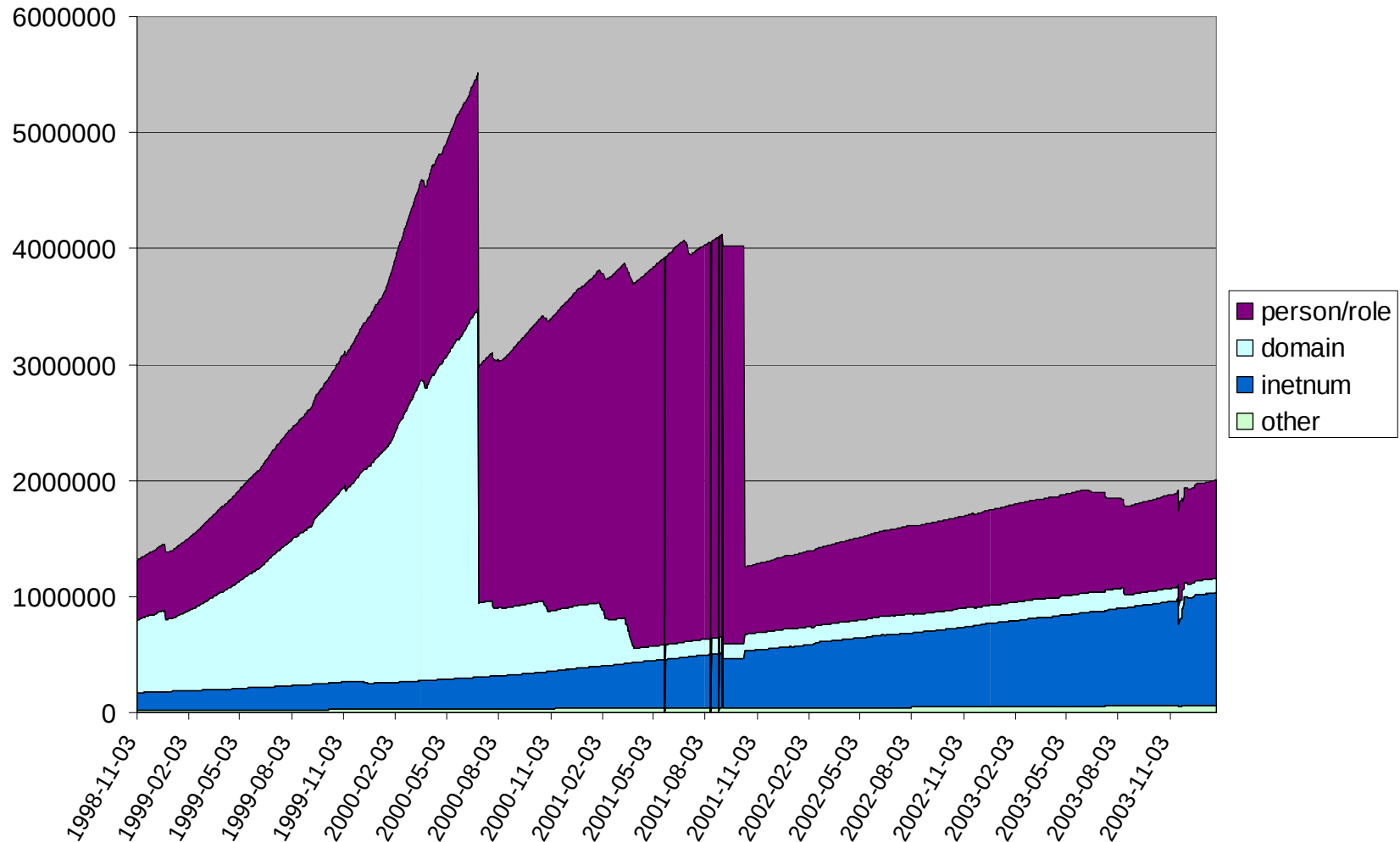
Object counts, query loads, etc. available on-line:

<http://www.ripe.net/db/dbconstat>

<http://www.ripe.net/db/mrtg/whois.html>

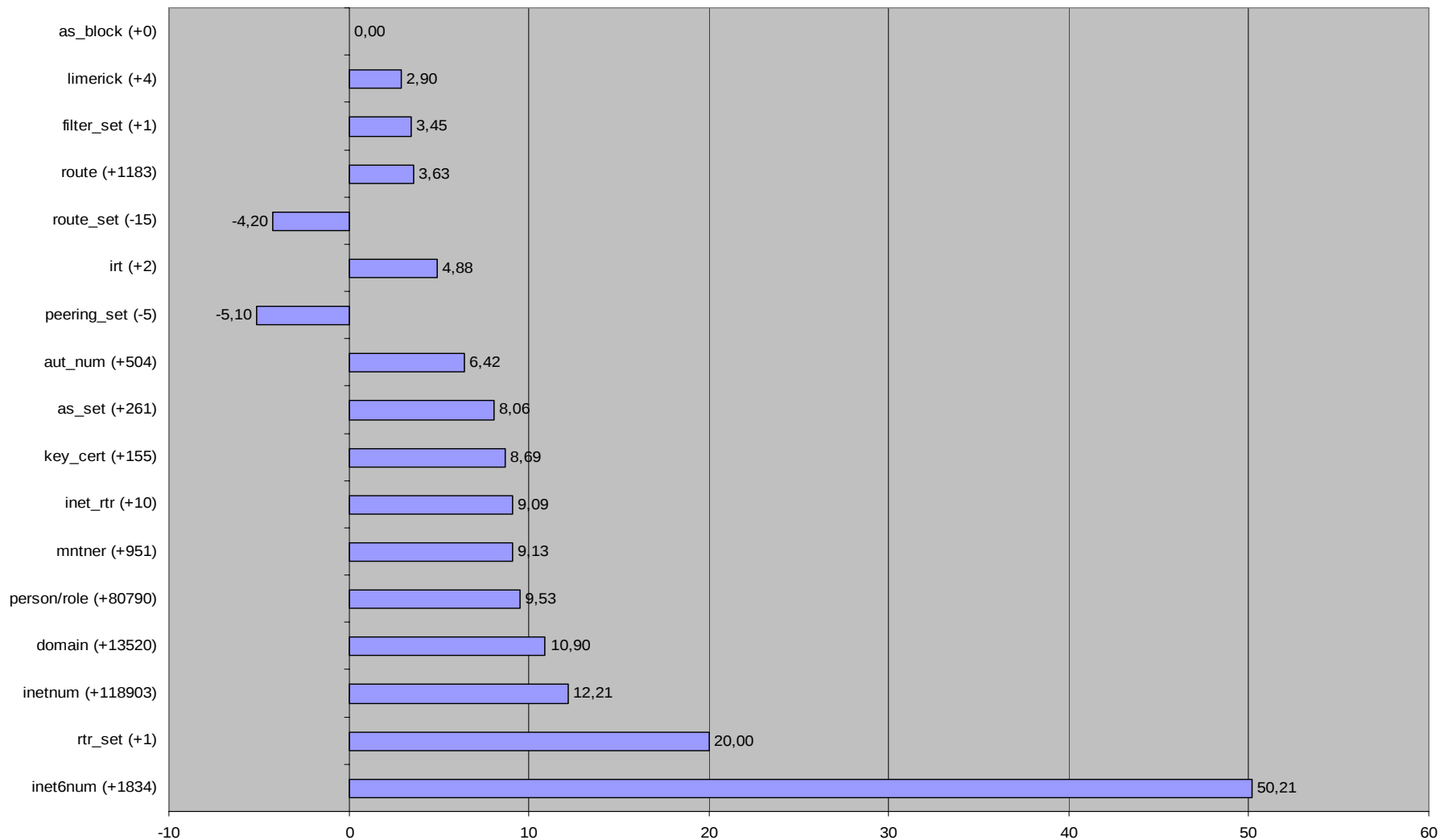
Database Contents

Historical



Database Contents

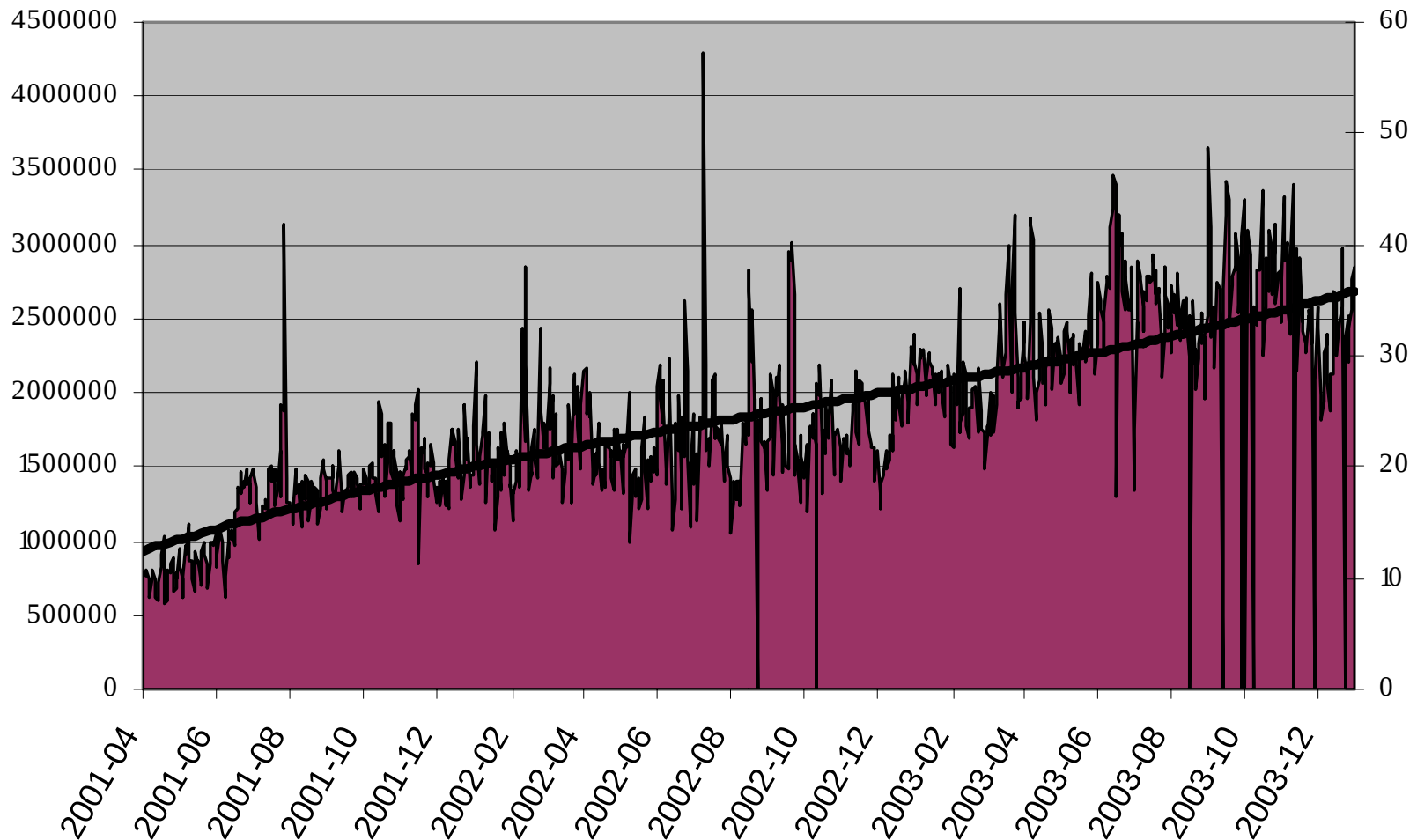
Change by Type



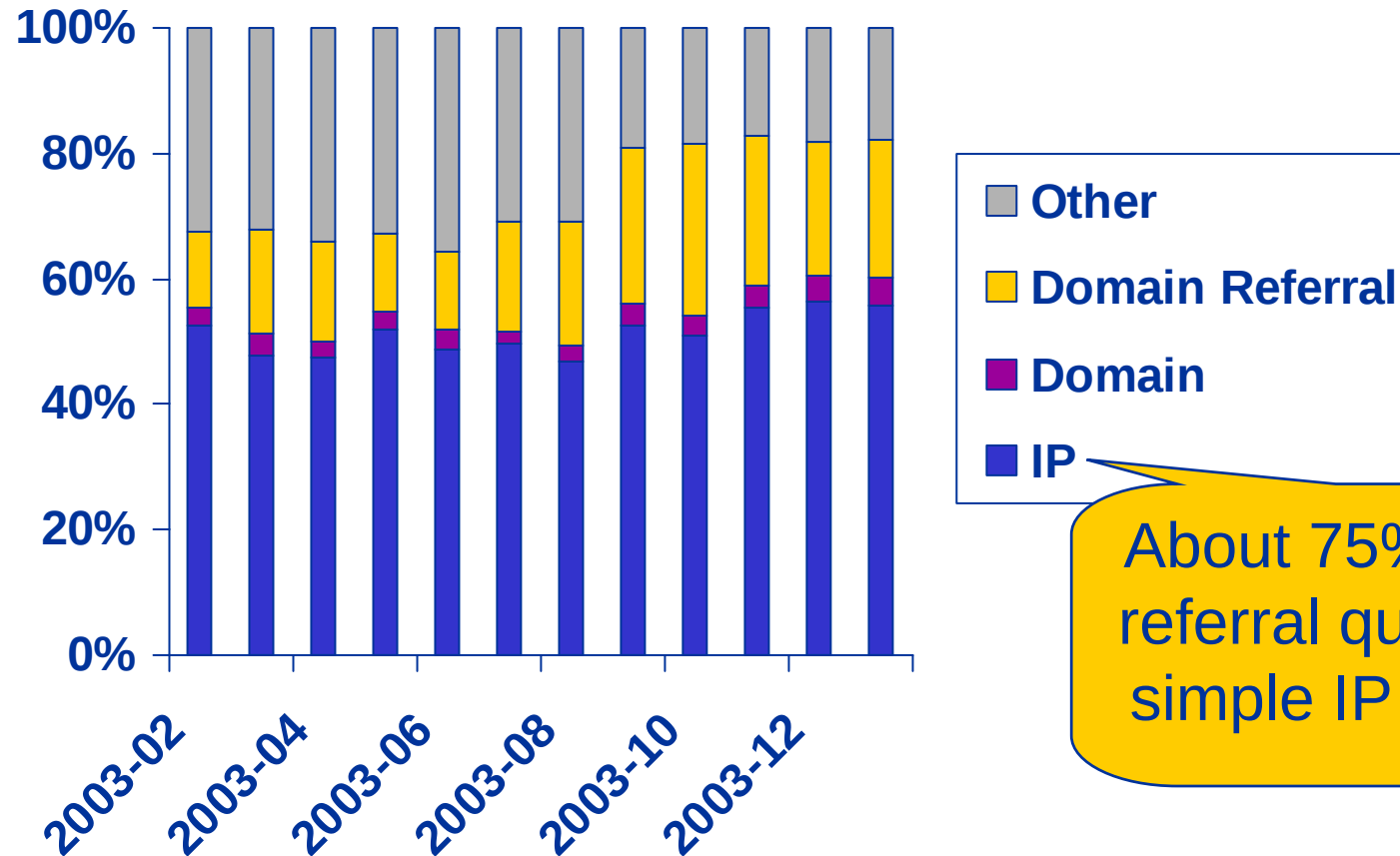
Query Load

Number of Queries

Queries/Second



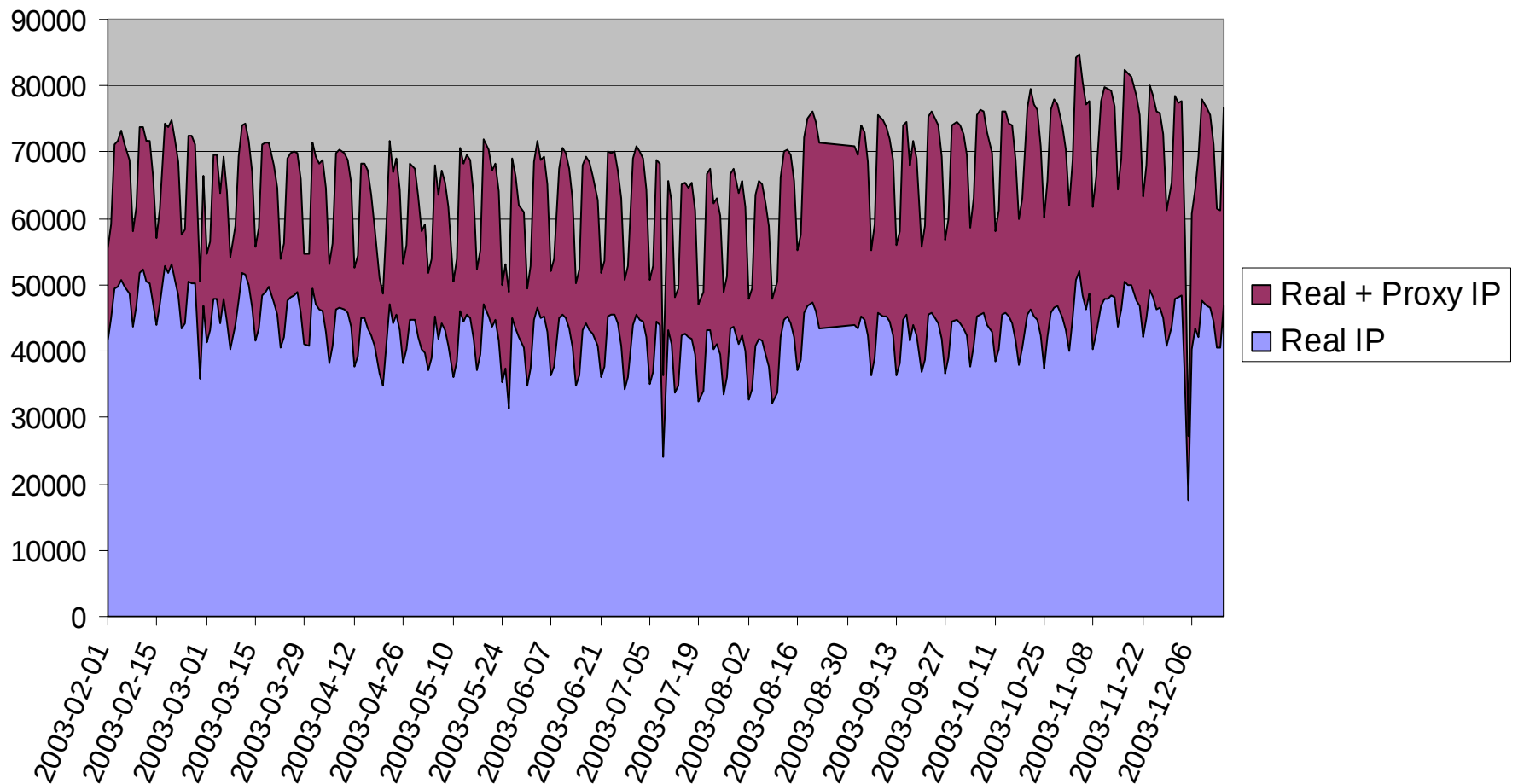
Query Types



About 75% of non-referral queries are simple IP lookups.

Where are the Queries From?

Unique IP's for Whois Queries/Day



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Completed Changes

- ✓ default to protected inetnum/inet6num/domain
- ✓ removal of cross notifications
 - Object change February 2004
- ✓ "mnt-lower:" on set objects
- ✓ "admin-c:"/"tech-c:" on key-cert objects
- ✓ SUB-ALLOCATED and NOT-SET "status:"
- ✓ Overlap prevention

Pending Changes

- "reclaim:"-like functionality
 - Proposal pending
- CIDR-to-range conversion for inetnum
- route authorisation from more-specifics
 - To improve aggregation
 - Proposal pending
- Organisation object
- Deprecating NONE (?)
- RPSLng (??)



Database-related Efforts

- ERX
- Reverse DNS
- PKI (X.509)
- Joint Whois/CRISP

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