

# Database Update

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# Outline

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- Introduction to the Database Group
- Status of APs and outstanding deliverables
- Projects completed between RIPE 60 and 61
- RIPE Labs publication highlights
- Q & A

# RIPE Database Service

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- Public Internet Resource Information for RIPE service region
- Internet Routing Registry
- Repository for resource Holder information
- Global Resource Information in RIPE RPSL
- Tools on <http://www.db.ripe.net>
- Prototypes on <http://labs.ripe.net/ripe-database>

# The Database Group

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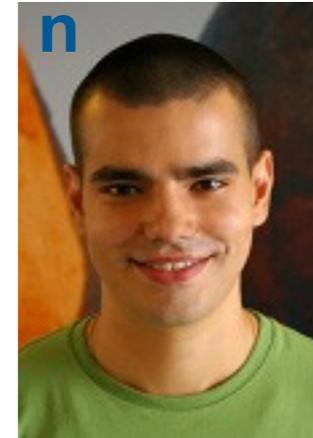
**Paul**



**Benedetto**



**Bogdan**



**Denis**



**Agoston**



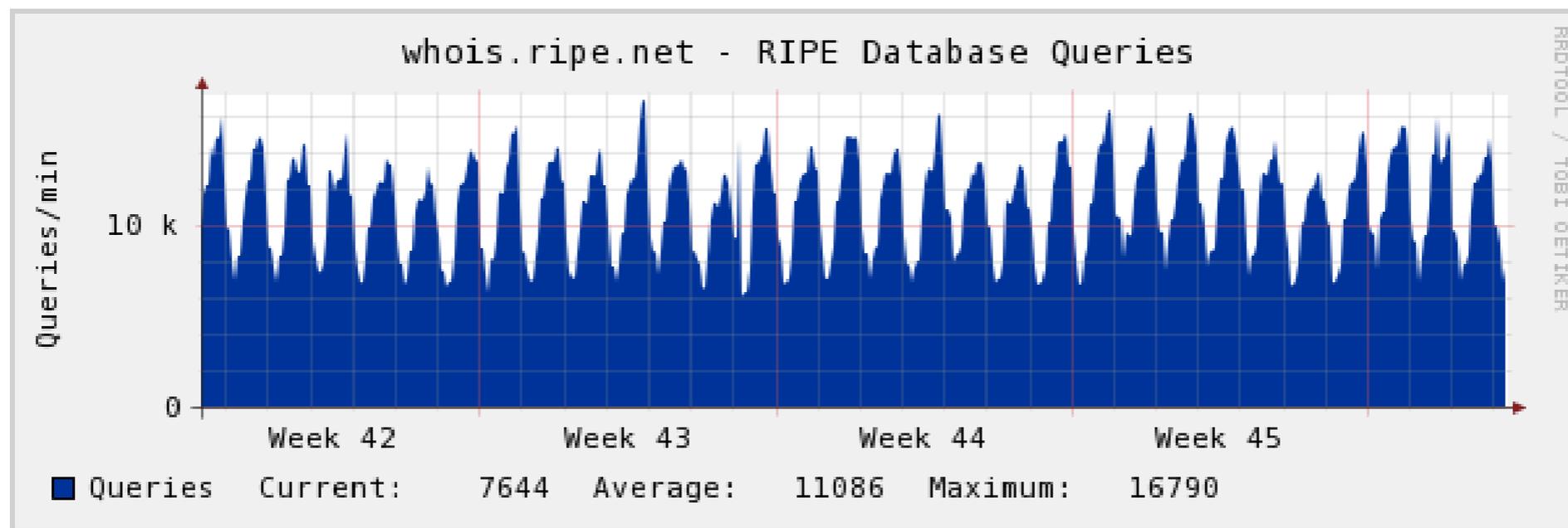
**Erik**



# RIPE Database statistics

- Operational stats:

<http://www.ripe.net/info/stats/db/ripedb.html>



- Hosts that queried for their own IP (EgoQuery™)
  - 453,335,944 between RIPE 60 – RIPE 61

# Customer Services

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**Laura**



**Henriette**



**Ronen**



**Milena**



**Marisol**



# Tickets

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# Action Points

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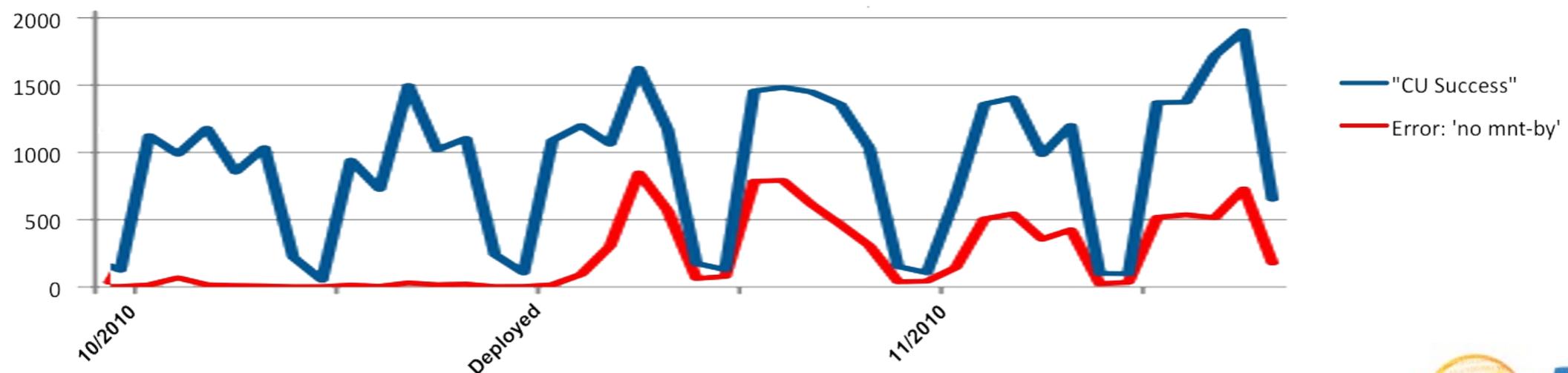
# Action Points

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- AP54.3: MNT-BY on Person/Role
- AP59.1: Reverse Delegation Safeguards
- AP59.4, AP59.5 and AP59.6
- AP60.1, AP60.2: Ping-c attribute
- Fix mirroring
- Cleanup forward domain data

# AP54.3: MNT-BY on Person/Role

- Deployed recently, all new data must now be maintained
- New start-up procedure  
<http://apps.db.ripe.net/startup>
- Warning in update response of any object that references unmaintained PERSON



# AP 59.1: Reverse Delegation Safeguards

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- Software changes are completed
- Joint deployment to be arranged with DNS group
- Deploy after the RIPE Meeting

# AP59.4, AP59.5 and AP59.6

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- Free-text search covers most of the use-cases
- Search for 'owner:' and 'fingerpr:'

owner:

```
/C=NL/O=RIPE NCC/OU=Members/CN=zz.example.denis/Email=denis@ripe.net
```

fingerpr:

```
E7:0F:3B:D4:2F:DD:F5:84:3F:4C:D2:98:78:F3:10:3D
```

# AP 60.1: Adding “ping-c:” to INET[6]NUM

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- We have not implemented RFC 5943 yet.
- Questions:
  - Should we check when added?
  - Should it include periodic checking?
    - Last seen attribute?
    - Which objects do we cover?
- We can produce a “lightweight” proposal with a prototype?

# Cleanup forward domain data

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- Started with 43 ccTLDs
- 4 are still actively using the RIPE Database
- 26 deleted
- 13 no response
  - Trying to go through CENTR to find contacts

# Fix mirroring

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- Completely redesigned and rewritten
- Now rebranded as Global Resource Service
- Sources:
  - APNIC, LACNIC, ARIN and RADB.
  - AfriNIC will follow shortly
- No personal data
- RIPE RPSL format
- Hierarchical queries possible on all data sources

# RIPE Labs highlights

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# RIPE Labs highlights

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- RIPE Database query API and search clients
  - Output in XML, JSON and RPSL
  - Strongly typed object references
  - Extra normalisation of lists, primary keys and comments
- RPKI IRR: Serving ROAs as RPSL route[6] objects
- Updated heuristics for the Abuse Finder service

# RIPE Labs highlights

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- Interesting Graphs - Nine Years of RIPE Database Objects
- RIPE Registry Global Resource Service:
  - the most complete set of operational data in (RIPE) RPSL format available in one place
- A new free-text search service
- A prototype of the RIPE Database with a clear separation of the Registry data and data maintained by resource holders

10ff 198.  
:b0f98:3080.  
98.51.100.14.  
:cb00:13be20  
:19f2:80::1 198  
d:2209:bc:80r  
:db8::109b  
08 51.

# Demo

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# Remove some RPSL complexity

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- RIPE Database API parses and normalises
  - Lists
  - Continuation lines
  - Collapse all white space to a single space internally
  - Normalise text version of IPv6 address prefixes
  - Complex MIME arrangements
- Heads up: We will come up with proposal about simplifying the syntax

# Remove some RPSL complexity

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```
inetnum: 193.0.0.0 # This is the beginning of our network range
# should we ask for more addresses at some point maybe?
+
-   # this is the dash, I like dashes
+
           193.0.7.255      # I only used tabs for whitespace in this line
+
# I have no further comments
+
netname:      RIPE-NCC
descr:       RIPE Network Coordination Centre
descr:       Amsterdam, Netherlands
country:    NL
admin-c:     HAJ-RIPE
tech-c:      HAJ-RIPE
status:      ASSIGNED PI
mnt-by: #comment before keys
    NINJA-MNT,  #end-of-line comment 1
           TEST-DBM-MNT      #end-of-line comment 2
+   ,UO-MNT  #end-of-line comment 3
    #end-of-line comment #more end-of-line comment
changed:     agoston@ripe.net 20101109
source:      TEST
```

# That looks better...

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```
inetnum: 193.0.0.0 - 193.0.7.255
Descr: This is the beginning of our network range
descr: should we ask for more addresses at some point maybe?
descr: this is the dash, I like dashes
descr: I only used tabs for whitespace in this line
descr: I have no further comments
netname: RIPE-NCC
descr: RIPE Network Coordination Centre
descr: Amsterdam, Netherlands
country: NL
admin-c: HAJ-RIPE
tech-c: HAJ-RIPE
status: ASSIGNED PI
descr: comment before keys
mnt-by: NINJA-MNT #end-of-line comment 1
mnt-by: TEST-DBM-MNT #end-of-line comment 2
mnt-by: UO-MNT #end-of-line comment 3
descr: end-of-line comment
descr: more end-of-line comment
changed: agoston@ripe.net 20101109
source: TEST
```

# Questions?

