

# Survey on Improving RIPE DB Quality

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# Keeping the RIPE DB accurate in the future

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- Exhaustion of IPv4
- No more audits for additional IPv4 allocations
- RIPE DB accuracy declines?
- Keeping the expertise
- Adding value to membership

# DB accuracy currently

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- Optional 'changed' attribute is the only indication how up-to-date an object is in the RIPE Database
- Doesn't specify which lines were updated

# New attributes in objects for data accuracy?

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**First idea** - to start brainstorm & feedback:

- **REG-REP** ‘optional’ and shows quality LIRs’ objects, based on:
  - confirmation by the LIRs themselves
  - audits periodically by the RIPE NCC
- **REG-HIST**
  - generated automatically
  - shows when each line was changed

# REG-REP sample illustrations

## REG-REP Raw

Search for

By pressing the "Search" button you explicitly express your agreement with the [RIPE Database Terms and Conditions](#)

[Switch to the RIPE TEST Database](#)

```

% This is the RIPE Database query service.
% The objects are in RPSL format.
%
% The RIPE Database is subject to Terms and Conditions.
% See http://www.ripe.net/db/support/db-terms-conditions.pdf

% Note: This output has been filtered.
%       To receive output for a database update, use the "-B" flag.

% Information related to '212.172.0.0 - 212.172.255.255'

inetnum:        212.172.0.0 - 212.172.255.255
org:            ORG-TBG1-RIPE
admin-c:       NET12312-RIPE
tech-c:        NET12312-RIPE
status:        ALLOCATED PA
mnt-by:        RIPE-NCC-HM-MNT
mnt-lower:     AS12312-MNT
mnt-domains:   AS12312-MNT
mnt-routes:    AS12312-MNT
source:        RIPE # Filtered
RIPE-REP-L:    2012m05:AAAa
    
```

**Note:**  
 Could still be useful if RPKI is implemented and most whois information is removed from the public domain

|  |   |
|--|---|
| <input type="button" value="REG-REP history"/> | 2012m05:AAAa 2012m04:aaaa 2012m03:BBBB<br>2012q1:BBBB 2011q04:BBBB 2011q03:BBBB<br>2011q02BBBB 2011q01:BBBB 2010q04:BBBB<br>2010q03:bbbb 2010q02:cccc |
| <input type="button" value="REG-REP parser"/>  |   |
| <input type="button" value="REG-REP grapher"/> |   |

## REG-REP Grapher

Search for

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Changed Values: ORG ■ ADMIN ■ MNT ■ OPS ■

# REG-HIST sample illustrations

## REG-HIST Raw

## REG-HIST Parsed

Search for

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%
% The RIPE Database is subject to Terms and Conditions.
% See http://www.ripe.net/db/support/db-terms-conditions.pdf
%
% Note: This output has been filtered.
%       To receive output for a database update, use the "-B" flag.
%
% Information related to '212.172.0.0 - 212.172.255.255'
```

|                     |   |
|---------------------|---|
| <b>inetnum:</b>     | 212.172.0.0 - 212.172.255.255   |
| <b>org:</b>         | <a href="#">ORG-TBG1-RIPE</a>   |
| <b>admin-c:</b>     | <a href="#">NET12312-RIPE</a>   |
| <b>tech-c:</b>      | <a href="#">NET12312-RIPE</a>   |
| <b>status:</b>      | ALLOCATED PA  |
| <b>mnt-by:</b>      | <a href="#">RIPE-NCC-HM-MNT</a>   |
| <b>mnt-lower:</b>   | <a href="#">AS12312-MNT</a>   |
| <b>mnt-domains:</b> | <a href="#">AS12312-MNT</a>   |
| <b>mnt-routes:</b>  | <a href="#">AS12312-MNT</a>   |
| <b>source:</b>      | RIPE # Filtered   |
| <b>reg-hist:</b>    | 89indlmpfexztasbro94INDLmpfEXCTt*ASb*r*o-w38<br>0INDLmpfEXCTt*ASb*r*o-845INDLmpfEXCTt*ASb*r*<br>999w- |

**Note:**  
Could still be useful if RPKI is implemented and most whois information is removed from the public domain

Search for

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[Switch to the RIPE TEST Database](#)

```
% The most recent reg-hist transaction occurred 89 days ago
% (20110427).
%
% On 20110427 an authenticated resource holder for the resource
% 212.172.0.0. - 212.172.255.255 modified registration records in
% the following registration record fields:
% inetnum (range), netname, descr, org-type, address, phone, fax,
% email, remarks, tech-c, admin-c, status, mnt-by, mnt-routes, &
% origin.
%
% On 20110427 an authenticated resource holder for the resource
% 212.172.0.0. - 212.172.255.255 deleted all information in the
% following registration record fields:
% country.
%
% The next most recent recent reg-hist transaction occurred 183 days
```

# Survey

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- 176 (163) attendees surveyed
- 10 training courses (3 LIR, 5 IPv6, 2 RR)
- 2 months (July, Aug 2010)
- Format:
  - 15 minute presentation
  - fill out questionnaire
  - group discussion
  - one-to-one discussions

# Questionnaire

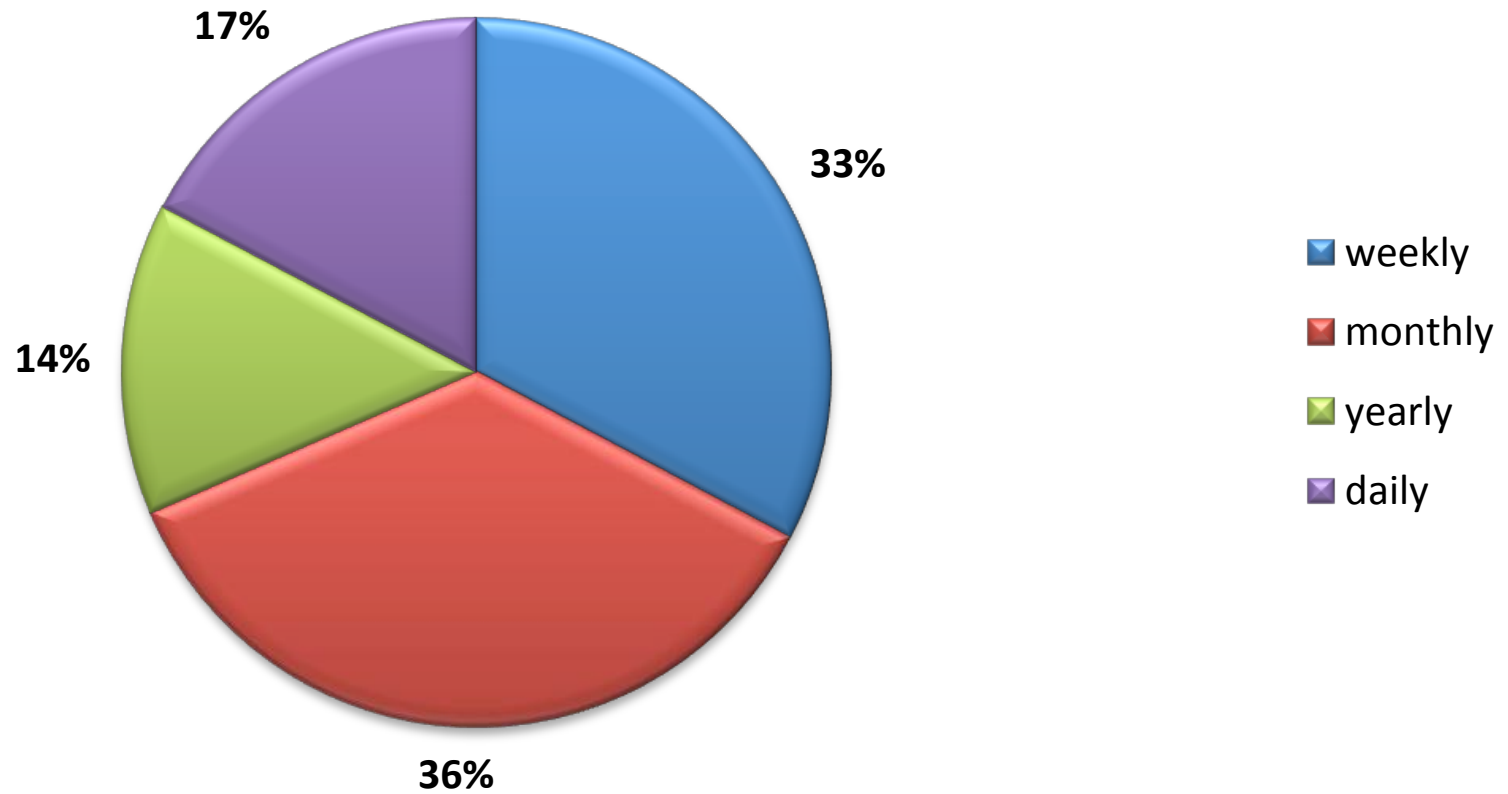
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- How often do you use the RIPE DB?
- Affected by outdated info?
- REG-HIST?
- REG-REP (confirmation)?
- REG-REP (audit)?
  - mandatory for all LIRs?
  - additional fee?
  
- space for comments under each question



# How often do you use the RIPE DB?

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# Results

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- How often do you use the RIPE DB?
- Affected by outdated info? **No**
- REG-HIST? **Yes**
- REG-REP (confirmation)? **Yes**
- REG-REP (audit)? **Yes**
  - mandatory for all LIRs? **Yes**
  - additional fee? **No**

# Those who said no: Why not?

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- REG-REP (confirmation)
  - work overload
  - doesn't ensure reliability
  - LIR keeps important objects updated anyway
  
- REG-HIST:
  - no needed, not useful or relevant
  - massive amounts of data
  - confidentiality

# Proposed Features REG-REP (confirmation)

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- **Should only take a few minutes!**
- **Search by confirmation date**
- **Automated validation of email addresses**
- Suggest correct updates
- Positive flagging

# Proposed Features REG-HIST

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- **Time stamp to the second**
- **Who, which mntner made the change**
- **Searchable by time period or attribute**
- **Only visible to LIR**
- **Automatically generated changed line:  
public**
- Only for certain attributes, certain objects
- Previous objects yes or no?



# Proposed alternative to REG-REP (confirmation)

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- Flag incorrect objects
  - by the community
  - fill in referenced nic-hdl and mntner password to avoid abuse
  - comment field
  
- Proposed by several attendees

# What does a “yes” mean?

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- Is yes a “yes” or a “don’t care” ?
- But respondents capable of clearly saying no:
  - premium service? : 69% No
- Final survey results similar to:
  - survey half-way results
  - results for subset of frequent DB users (daily, weekly)
- Need hasn’t been formulated yet?



“Don’t Make the DB more complicated!”

“DB accuracy is important”