RIPE Database Tips and Tricks

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Alex le Heux

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Overview

• What is the RIPE Database?
• Person and Role Objects
• Maintainers, Protection and Authentication
• Updating the RIPE DB
• Querying the RIPE DB
• New Developments
• Practical Scenarios
The RIPE Database
RIPE Database

- Public Internet resource and routing registry database
- Registering resources
  - inetnum, inet6num, aut-num
- Contact info
  - person, role
- Protection and authentication
  - mntner
Person Object

person: John Example
address: Singel 258
address: 1016 AB Amsterdam
address: The Netherland
phone: +31 20 535 4444
e-mail: johne@bluelight.ripe.net
nic-hdl: JE1787-RIPE
mnt-by: EXM-MNT
changed: johne@bluelight.ripe.net 20111007
source: RIPE
Using a Role Object

**Person: John Doe**
- nic-hdl: JD1-RIPE
- address: sesamestreet 1
- phone: +1 555 0101
- email: john@xmpl.org
- mnt-by: LIR-MNT

**Person: James Smith**
- nic-hdl: JS123-RIPE
- address: Dam Square 1
- phone: +31 535 7111
- e-mail: js@xmpl.org
- mnt-by: LIR-MNT

**Person: Sue Baker**
- nic-hdl: SB456-RIPE
- address: 7 Piccadilly
- phone: +44 207 10101
- e-mail: sueb@xample.org
- mnt-by: LIR-MNT

**Role: Bluelight Staff**
- nic-hdl: BLS77-RIPE
- admin-c: JD1-RIPE
- tech-c: JS123-RIPE
- tech-c: SB456-RIPE
- email: tc@xmpl.org

**inet6num: 80.35.61.0**
- tech-c: BLS77-RIPE

**inet6num: 80.35.62.0**
- tech-c: BLS77-RIPE

**inet6num: 80.35.63.0**
- tech-c: BLS77-RIPE

**inet6num: 80.35.64.0**
- tech-c: BLS77-RIPE

**inet6num: 80.35.65.0**
- tech-c: BLS77-RIPE

**inet6num: 80.35.66.0**
- tech-c: BLS77-RIPE
Questions?
Maintainers, Protection and Authentication
The Maintainer Object

• Acts as a lock for your objects
• It is not related to a real person
• A single maintainer can protect multiple objects
  - Different types
  - Related to different people or even companies
• An object can have multiple maintainers
• At least one maintainer is mandatory for all objects in the RIPE Database
### Maintainer Object Template

<table>
<thead>
<tr>
<th>Field</th>
<th>Type</th>
<th>Examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>mntner:</td>
<td>[mandatory]</td>
<td>[single]</td>
</tr>
<tr>
<td>descr:</td>
<td>[mandatory]</td>
<td>[multiple]</td>
</tr>
<tr>
<td>org:</td>
<td>[optional]</td>
<td>[multiple]</td>
</tr>
<tr>
<td>admin-c:</td>
<td>[mandatory]</td>
<td>[multiple]</td>
</tr>
<tr>
<td>tech-c:</td>
<td>[optional]</td>
<td>[multiple]</td>
</tr>
<tr>
<td>upd-to:</td>
<td>[mandatory]</td>
<td>[multiple]</td>
</tr>
<tr>
<td>mnt-nfy:</td>
<td>[optional]</td>
<td>[multiple]</td>
</tr>
<tr>
<td>auth:</td>
<td>[mandatory]</td>
<td>[multiple]</td>
</tr>
<tr>
<td>remarks:</td>
<td>[optional]</td>
<td>[multiple]</td>
</tr>
<tr>
<td>notify:</td>
<td>[optional]</td>
<td>[multiple]</td>
</tr>
<tr>
<td>abuse-mailbox:</td>
<td>[optional]</td>
<td>[multiple]</td>
</tr>
<tr>
<td>mnt-by:</td>
<td>[mandatory]</td>
<td>[multiple]</td>
</tr>
<tr>
<td>referral-by:</td>
<td>[mandatory]</td>
<td>[single]</td>
</tr>
<tr>
<td>changed:</td>
<td>[mandatory]</td>
<td>[multiple]</td>
</tr>
<tr>
<td>source:</td>
<td>[mandatory]</td>
<td>[single]</td>
</tr>
</tbody>
</table>
## Maintainer Object

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>mntner</td>
<td>EXM-MNT</td>
</tr>
<tr>
<td>descr</td>
<td>Maintainer</td>
</tr>
<tr>
<td>admin-c</td>
<td>JE1787-RIPE</td>
</tr>
<tr>
<td>upd-to</td>
<td><a href="mailto:johne@bluelight.ripe.net">johne@bluelight.ripe.net</a></td>
</tr>
<tr>
<td>auth</td>
<td>MD5-PW $1$as7bGWgr$D7J3qPU8LXmEdusi59gsJ1</td>
</tr>
<tr>
<td>mnt-by</td>
<td>EXM-MNT</td>
</tr>
<tr>
<td>referral-by</td>
<td>EXM-MNT</td>
</tr>
<tr>
<td>notify</td>
<td><a href="mailto:johne@bluelight.ripe.net">johne@bluelight.ripe.net</a></td>
</tr>
<tr>
<td>changed</td>
<td><a href="mailto:johne@bluelight.ripe.net">johne@bluelight.ripe.net</a> 20111007</td>
</tr>
<tr>
<td>remarks</td>
<td>Accepted the RIPE Database Terms and Conditions</td>
</tr>
<tr>
<td>source</td>
<td>RIPE</td>
</tr>
</tbody>
</table>
DB Startup Tool

- Creation of first person object - mntner object pair

```
person: John Smith
  nic-hdl: JS1-RIPE
  mnt-by: LIR-MNT

mntner: LIR-MNT
  auth: MD5-PW $1$o93UxR
  admin-c: JS1-RIPE
```
DB Startup Tool Interface

New Organisation Startup Form

Select Database
Source: RIPE Database

Person Object
Person: John Example
Nic hdl:
Address: ENSIP 258
1016 AB Amsterdam
The Netherlands
Phone: +31 20 535 4444
Email: johne.bluelight.ripe.net

The NIC hdl has a fixed format. If you are not sure what to enter, leave it blank and it will be generated for you. This NIC hdl cannot be changed after creation. For further details about Nic hdl see RIPE Database User Manual-Getting Started.

Maintainer Object
Maintainer name: EXM-MNT
Password: 
Password (again): 

If you leave the maintainer name field blank it will be generated for you.

Accept Terms and Conditions
I accept the RIPE Database Terms and Conditions.
Create!
New Organisation Startup Form

**Succeeded! Where to go from here...**
We have created two RIPE Database objects for you, please make a note of the primary keys (shown in bold letters) for these two objects for future reference:

**person nic-hdl: JE1787-RIPE**

- person: John Example
- address: Singel 258
- address: 1016 AB Amsterdam
- address: The Netherlands
- phone: +31 20 535 4444
- e-mail: johne@bluelight.ripe.net
- nic-hdl: JE1787-RIPE
- mnt-by: EXM-MNT
- changed: johne@bluelight.ripe.net 20111007
- source: RIPE

**maintainer name: EXM-MNT**

- mntner: EXM-MNT
- descr: Maintainer
- admin-c: JE1787-RIPE
- upd-to: johne@bluelight.ripe.net
- auth: MD5-FW $1$as7bGWgr$D7J3qPU8LXmEdusi59gsJ1
- mnt-by: EXM-MNT
- referral-by: EXM-MNT
- notify: johne@bluelight.ripe.net
- changed: johne@bluelight.ripe.net 20111007
- remarks: Accepted the RIPE Database Terms and Conditions
- source: RIPE
1. Create a Maintainer Via Webupdates

- If you already have a person or role object:
  1. Choose password
  2. Encrypt it using the web tool at
     https://apps.db.ripe.net/crypt/
  3. Select to create a maintainer object
  4. Include encrypted password in the auth attribute
     auth: MD5-PW $1$o93UxR
  5. Fill out the rest of the fields and click create
  6. Remember to supply the password!
2. Protect an Object

• Add this line to the object

  - `mnt-by: EXM-MNT`
3. When to Use Your Password

- When creating, supply the password of the new maintainer
- When updating/deleting, supply the password of the current maintainer
PGP Authentication

• More secure than MD5 password
• Private/public key pair
Using a Single Maintainer

- **mntner**: LIR-MNT
- **auth**: MD5-PW $1$o93Ux

- **inetnum**: 85.118.184.0/24
- **status**: ASSIGNED PA
- **mnt-by**: LIR-MNT

- **person**: John Smith
- **nic-hdl**: JS1-RIPE
- **mnt-by**: LIR-MNT

- **aut-num**: AS2
- **mnt-by**: LIR-MNT
Using Multiple Passwords

mntner: LIR-MNT
auth: MD5-PW $1$o93Ux
auth: MD5-PW $6$ghcow

inetnum: 85.118.184.0/24
status: ASSIGNED PA
mnt-by: LIR-MNT

person: John Smith
nic-hdl: JS1-RIPE
mnt-by: LIR-MNT

aut-num: AS2
mnt-by: LIR-MNT
Using Multiple PGP keys

- mntner: LIR-MNT
- auth: PGPKEY-2A57C990
- auth: PGPKEY-964F26E4

inetnum: 85.118.184.0/24
status: ASSIGNED PA
mnt-by: LIR-MNT

person: John Smith

nic-hdl: JS1-RIPE
mnt-by: LIR-MNT

aut-num: AS2
mnt-by: LIR-MNT
Multiple Maintainers

mntner: ONE-MNT
auth: MD5-PW $1$o93UxR
auth: PGPKEY-AE6FBBF7

mntner: TWO-MNT
auth: MD5-PW $1$3SG9WP
Questions?
Updating the RIPE DB
Webupdates Interface

You are here: Home > Data & Tools > RIPE Database > Webupdates

RIPE Database Webupdates

Select the type and the source of the object you want to create

Create Object

Object type: select a type

Source Database: RIPE Database, RIPE TEST Database

Operation: Create object by individual fields, Create object in single text area

Add passwords

Select type of object to be created and the operation format.

Note

If your organisation does not have a mntner object yet, you need to use the New Organisation Startup form.
Webupdates: Individual Fields

You are here: Home > Data & Tools > RIPE Database > Webupdates

**RIPE Database Webupdates**

Create a new **PERSON** object

<table>
<thead>
<tr>
<th><strong>Object data</strong></th>
<th><strong>Value</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>person</td>
<td>James Example</td>
</tr>
<tr>
<td>address</td>
<td>Singel 258, 1016 AB, Amsterdam, The Netherlands</td>
</tr>
<tr>
<td>phone</td>
<td>+31 20 535 4444</td>
</tr>
<tr>
<td>nic-hdl</td>
<td>auto-1</td>
</tr>
<tr>
<td>mnt-by</td>
<td>Example-mnt</td>
</tr>
<tr>
<td>changed</td>
<td><a href="mailto:jamese@bluelight.ripe.net">jamese@bluelight.ripe.net</a></td>
</tr>
<tr>
<td>source</td>
<td>RIPE</td>
</tr>
</tbody>
</table>

*By submitting this form you explicitly express your agreement with the RIPE Database Terms and Conditions*

**Update**
- Create an object
- Modify or delete an object
- Quick update
- Syncupdate

**Query**

**Others**

**Add passwords**

**Session passwords**
- Stored password(s)

Password: [HIDDEN]

**Create Objects**

This form allows a user to create an object by adding values to the fields shown. Additional fields may be added and some fields may be deleted where indicated.
Webupdates: Single Text Area

RIPE Database Webupdates

Create a new PERSON object

Object data

PERSON: James Example
ADDRESS: Singel 258, 1016 AB Amsterdam, The Netherlands
PHONE: +31 20 535 4444
fax-no: +31 20 535 4445
e-mail: jameyse@bluelight.ripe.net
org: ORG-Bb2-RIPE
NIC-HDL: auto-l
remarks: this is an example
notify: jameyse@bluelight.ripe.net
abuse-mailbox: abuse@bluelight.ripe.net
MNT-BY: Example-mnt
CHANGED: jameyse@bluelight.ripe.net
SOURCE: RIPE

By submitting this form you explicitly express your agreement with the RIPE Database Terms and Conditions.
Questions?
Querying the RIPE DB

• Command-line client
• Web interface
• Full text search
Query Web Interface

RIPE Database Query

**Search details:**

You can specify up to five comma separated terms:  

85.118.184.0/21

By pressing the "Search" button you explicitly express your agreement with the RIPE Database Terms and Conditions.

**Sources**

- [ ] RIPE Database
- [ ] RIPE TEST Database

**Global Resource Service beta**

- [ ] RIPE-GRS
- [ ] AFRINIC-GRS
- [ ] APNIC-GRS
- [ ] ARIN-GRS
- [ ] LACNIC-GRS

- [ ] JPIRR-GRS
- [ ] RADB-GRS
- [ ] All

[RIPE Database Query](image-url)
Query With -B Flag

RIPE Database Query

You can specify up to five comma separated terms:

85.118.184.0/21

By pressing the "Search" button you explicitly express your agreement with the RIPE Database Terms and Conditions.

Learn more about RIPE Database queries using primary and lookup keys

- B - Show full object details.
- C - Disable the default return of IRT objects.
- d - Return IP address, route and reverse domain data with -m,-M,-x,-l,-L flags.
- G - Turn off logical grouping of objects and list objects according to type.
- I - Return first-level less specific inet(6)num, route(6) or domain objects, excluding exact match.
<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>inetnum</td>
<td>85.118.184.0 - 85.118.191.255</td>
</tr>
<tr>
<td>descr</td>
<td>We want more Bluelight B.V</td>
</tr>
<tr>
<td>netname</td>
<td>NL-BLUelight-20050428</td>
</tr>
<tr>
<td>country</td>
<td>NL</td>
</tr>
<tr>
<td>org</td>
<td>ORG-Bb2-RIPE</td>
</tr>
<tr>
<td>admin-c</td>
<td>BN649-RIPE</td>
</tr>
<tr>
<td>tech-c</td>
<td>BLUE-RIPE</td>
</tr>
<tr>
<td>status</td>
<td>ALLOCATED PA</td>
</tr>
<tr>
<td>remarks</td>
<td>Used only as an educational example</td>
</tr>
<tr>
<td>remarks</td>
<td>by Training Services of RIPE NCC</td>
</tr>
<tr>
<td>remarks</td>
<td>during LIR Training Courses</td>
</tr>
<tr>
<td>mnt-by</td>
<td>RIPE-NCC-HM-MNT</td>
</tr>
<tr>
<td>mnt-lower</td>
<td>BLUelight-MNT</td>
</tr>
<tr>
<td>mnt-routes</td>
<td>BLUelight-MNT</td>
</tr>
<tr>
<td>mnt-domains</td>
<td>BLUelight-MNT</td>
</tr>
<tr>
<td>notify</td>
<td><a href="mailto:user@bluelight.ripe.nl">user@bluelight.ripe.nl</a></td>
</tr>
<tr>
<td>notify</td>
<td><a href="mailto:user1@bluelight.ripe.nl">user1@bluelight.ripe.nl</a></td>
</tr>
<tr>
<td>notify</td>
<td><a href="mailto:user@bluelight.ripe.nl">user@bluelight.ripe.nl</a></td>
</tr>
<tr>
<td>notify</td>
<td><a href="mailto:bit-bucket@ripe.net">bit-bucket@ripe.net</a></td>
</tr>
<tr>
<td>changed</td>
<td><a href="mailto:bit-bucket@ripe.net">bit-bucket@ripe.net</a> 20110801</td>
</tr>
<tr>
<td>changed</td>
<td><a href="mailto:bit-bucket@ripe.net">bit-bucket@ripe.net</a> 20110801</td>
</tr>
<tr>
<td>changed</td>
<td><a href="mailto:bit-bucket@ripe.net">bit-bucket@ripe.net</a> 20110801</td>
</tr>
<tr>
<td>changed</td>
<td><a href="mailto:bit-bucket@ripe.net">bit-bucket@ripe.net</a> 20110801</td>
</tr>
<tr>
<td>changed</td>
<td><a href="mailto:hostmaster@ripe.net">hostmaster@ripe.net</a> 20110804</td>
</tr>
<tr>
<td>changed</td>
<td><a href="mailto:bit-bucket@ripe.net">bit-bucket@ripe.net</a> 20110804</td>
</tr>
<tr>
<td>source</td>
<td>RIPE</td>
</tr>
</tbody>
</table>
Object Templates

- To get the empty template for any object type, query with the ‘t’ flag
Person Object Template

<table>
<thead>
<tr>
<th>Field</th>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>person:</td>
<td>mandatory</td>
<td>[single]</td>
</tr>
<tr>
<td>address:</td>
<td>mandatory</td>
<td>[multiple] [lookup key]</td>
</tr>
<tr>
<td>phone:</td>
<td>mandatory</td>
<td>[multiple] [lookup key]</td>
</tr>
<tr>
<td>fax-no:</td>
<td>optional</td>
<td>[multiple] [inverse key]</td>
</tr>
<tr>
<td>e-mail:</td>
<td>optional</td>
<td>[multiple] [lookup key]</td>
</tr>
<tr>
<td>org:</td>
<td>optional</td>
<td>[multiple] [inverse key]</td>
</tr>
<tr>
<td>nic-hdl:</td>
<td>mandatory</td>
<td>[single] [primary/look-up key]</td>
</tr>
<tr>
<td>remarks:</td>
<td>optional</td>
<td>[multiple] [inverse key]</td>
</tr>
<tr>
<td>notify:</td>
<td>optional</td>
<td>[multiple] [inverse key]</td>
</tr>
<tr>
<td>abuse-mailbox:</td>
<td>optional</td>
<td>[multiple] [inverse key]</td>
</tr>
<tr>
<td>mnt-by:</td>
<td>mandatory</td>
<td>[multiple] [inverse key]</td>
</tr>
<tr>
<td>changed:</td>
<td>mandatory</td>
<td>[multiple] [inverse key]</td>
</tr>
<tr>
<td>source:</td>
<td>mandatory</td>
<td>[single] [inverse key]</td>
</tr>
</tbody>
</table>
# Lookup Keys

<table>
<thead>
<tr>
<th>person</th>
<th>James Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>address</td>
<td>Singel 258</td>
</tr>
<tr>
<td>address</td>
<td>1016 AB Amsterdam</td>
</tr>
<tr>
<td>phone</td>
<td>+31 20 535 4444</td>
</tr>
<tr>
<td>fax</td>
<td>+31 20 535 4445</td>
</tr>
<tr>
<td>email</td>
<td><a href="mailto:jame@example.org">jame@example.org</a></td>
</tr>
<tr>
<td>org</td>
<td>ORG-Bb2-RIPE</td>
</tr>
<tr>
<td>nic-hdl</td>
<td>JE1787-RIPE</td>
</tr>
<tr>
<td>mnt-by</td>
<td>LIR-MNT</td>
</tr>
<tr>
<td>source</td>
<td>RIPE</td>
</tr>
</tbody>
</table>

**LOOKUP KEYS**
Full Text Search

RIPE Database text search:

bluelight

By pressing the “Search” button you explicitly express your agreement with the RIPE Database Terms and Conditions.

Advanced Search  Search

Search results

This is the RIPE Database full text search service. The RIPE Database is subject to Terms and Conditions. See http://www.ripe.net/db/support/db-terms-conditions.pdf

1 2 3 4

aut-num: AS65534
as-name=BLUETYPE, mnt-routes=BLUETYPE-MNT, mnt-by=RIPE-NCC-HM-MNT BLUETYPE-MNT, descr=nl.bluelight

domain: bluelight.mc
domain=bluelight.mc

domain: 210.149.82.in-addr.arpa
desc=Reverse delegation for Bluelight 2nd/24

domain: 205.149.82.in-addr.arpa
desc=Reverse delegation for Bluelight 2nd/24

domain: 185.118.85.in-addr.arpa
mnt-by=bluelight-mnt RIPE-DNS-MNT, descr=reverse for bluelight
Questions?
Querying With Flags
More Specific Inetnums:  -m

85.118.184.0/21

-m 85.118.84.0/21

/24  /26  /25
More Specific Inetnums: -M

- M 85.118.184.0/21
- M 85.118.84.0/21

/24
/26
/25
Less Specific Inetnums:

- 85.118.184.0/21
- 85.118.185.0/24
Less Specific Inetnums: -L

- L 85.118.185.0/24

85.118.184.0/21

85/8

0/0
Other Flags

- **-r**
  - don’t show referenced person and role objects

- **-T**
  - only show objects of this type
  - example   -T inetnum

- **-G**
  - group same type objects together
Questions?
Inverse Lookup
Inverse Lookup

• Finding all objects that list/point to your object
Inverse Lookup

RIPE Database Query

Search details:

You can specify up to five comma separated terms:

JD1-RIPE

By pressing the "Search" button you explicitly express your agreement with the RIPE Database Terms and Conditions.

Learn more about RIPE Database queries using inverse lookup keys

- abuse-mailbox
- admin-c
- auth
- author
- fingerpr
- form
- irt-nfy
- local-as
- mbtrs-by-ref
- member-of
- mnt-by
- mnt-domains
- mnt-irt
- mnt-lower
- mnt-nfy
- mnt-ref
- mnt-routes
- notify
- nserver
- org
- origin
- person
- ping-hdl
- referral-by
- ref-nfy
- sub-dom
- tech-c
- upd-to
- zone-c
Inverse Lookup: admin-c

inet6num: 2001:db8::/32

descr: My IPv6 Range
mnt-by: RIPE-NCC-HM-MNT
mnt-lower: LIR-MNT
mnt-routes: LIR-MNT
org: ORG-BB2-RIPE
admin-c: JE777-RIPE
tech-c: JD1-RIPE

aut-num: 64551

descr: My AS Number
mnt-by: RIPE-NCC-END-MNT
mnt-by: LIR-MNT
org: ORG-BB2-RIPE
admin-c: JD1-RIPE
tech-c: LA789-RIPE

mntner: LIR-MNT

admin-c: JD1-RIPE
tech-c: LA789-RIPE
mnt-by: LIR-MNT
notify: noc@example.org
mnt-nfy: list@example.org
abuse-mailbox: abuse@example.org
auth: MD5-PW $tst^89H$

role: Bluelight Staff

nic-hdl: BLS77-RIPE
admin-c: JD1-RIPE
address: sesamestreet 1
phone: +1 555 0101
e-mail: john@example.org

person: John Doe

nic-hdl: JD1-RIPE
address: sesamestreet 1
phone: +1 555 0101
e-mail: john@example.org
mnt-by: LIR-MNT

-i admin-c JD1-RIPE
# Inverse Lookup: person

<table>
<thead>
<tr>
<th><strong>inetnum:</strong></th>
<th>2001:db8::/32</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>descr:</strong></td>
<td>My IPv6 Range</td>
</tr>
<tr>
<td><strong>mnt-by:</strong></td>
<td>RIPE-NCC-HM-MNT</td>
</tr>
<tr>
<td><strong>mnt-lower:</strong></td>
<td>LIR-MNT</td>
</tr>
<tr>
<td><strong>mnt-routes:</strong></td>
<td>LIR-MNT</td>
</tr>
<tr>
<td><strong>org:</strong></td>
<td>ORG-BB2-RIPE</td>
</tr>
<tr>
<td><strong>admin-c:</strong></td>
<td>JE777-RIPE</td>
</tr>
<tr>
<td><strong>tech-c:</strong></td>
<td>JD1-RIPE</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>aut-num:</strong></th>
<th>64551</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>descr:</strong></td>
<td>My AS Number</td>
</tr>
<tr>
<td><strong>mnt-by:</strong></td>
<td>RIPE-NCC-END-MNT</td>
</tr>
<tr>
<td><strong>mnt-by:</strong></td>
<td>LIR-MNT</td>
</tr>
<tr>
<td><strong>org:</strong></td>
<td>ORG-BB2-RIPE</td>
</tr>
<tr>
<td><strong>tech-c:</strong></td>
<td>JD1-RIPE</td>
</tr>
<tr>
<td><strong>tech-c:</strong></td>
<td>LA789-RIPE</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>mntner:</strong></th>
<th>LIR-MNT</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>admin-c:</strong></td>
<td>JD1-RIPE</td>
</tr>
<tr>
<td><strong>tech-c:</strong></td>
<td>LA789-RIPE</td>
</tr>
<tr>
<td><strong>mnt-by:</strong></td>
<td>LIR-MNT</td>
</tr>
<tr>
<td><strong>notify:</strong></td>
<td><a href="mailto:noc@example.org">noc@example.org</a></td>
</tr>
<tr>
<td><strong>mnt-nfy:</strong></td>
<td><a href="mailto:list@example.org">list@example.org</a></td>
</tr>
<tr>
<td><strong>abuse-mailbox:</strong></td>
<td><a href="mailto:abuse@example.org">abuse@example.org</a></td>
</tr>
<tr>
<td><strong>auth:</strong></td>
<td>MD5-PW $tst^89H$</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>role:</strong></th>
<th>Bluelight Staff</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>nic-hdl:</strong></td>
<td>BLS77-RIPE</td>
</tr>
<tr>
<td><strong>admin-c:</strong></td>
<td>JD1-RIPE</td>
</tr>
<tr>
<td><strong>address:</strong></td>
<td>sesamestreet 1</td>
</tr>
<tr>
<td><strong>phone:</strong></td>
<td>+1 555 0101</td>
</tr>
<tr>
<td><strong>e-mail:</strong></td>
<td><a href="mailto:john@example.org">john@example.org</a></td>
</tr>
</tbody>
</table>

```bash
-i person JD1-RIPE
```

<table>
<thead>
<tr>
<th><strong>person:</strong></th>
<th>John Doe</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>nic-hdl:</strong></td>
<td>JD1-RIPE</td>
</tr>
<tr>
<td><strong>address:</strong></td>
<td>sesamestreet 1</td>
</tr>
<tr>
<td><strong>phone:</strong></td>
<td>+1 555 0101</td>
</tr>
<tr>
<td><strong>e-mail:</strong></td>
<td><a href="mailto:john@example.org">john@example.org</a></td>
</tr>
<tr>
<td><strong>mnt-by:</strong></td>
<td>LIR-MNT</td>
</tr>
</tbody>
</table>

RIPE DB Tips and Tricks Tutorial, ENOG2
Inverse Lookup: mnt-by

**inetnum:** 2001:db8::/32
- **descr:** My IPv6 Range
- **mnt-by:** RIPE-NCC-HM-MNT
- **mnt-lower:** LIR-MNT
- **mnt-routes:** LIR-MNT
- **org:** ORG-BB2-RIPE
- **admin-c:** JE777-RIPE
- **tech-c:** JD1-RIPE

**aut-num:** 64551
- **descr:** My AS Number
- **mnt-by:** RIPE-NCC-END-MNT
- **mnt-by:** LIR-MNT
- **org:** ORG-BB2-RIPE
- **admin-c:** JD1-RIPE
- **tech-c:** LA789-RIPE

**person:** John Doe
- **nic-hdl:** JD1-RIPE
- **address:** sesamestreet 1
- **phone:** +1 555 0101
- **e-mail:** john@example.org
- **mnt-by:** LIR-MNT

**role:** Bluelight Staff
- **nic-hdl:** BLS77-RIPE
- **admin-c:** JD1-RIPE
- **address:** sesamestreet 1
- **phone:** +1 555 0101
- **mnt-by:** LIR-MNT

**mntner:** LIR-MNT
- **admin-c:** JD1-RIPE
- **tech-c:** LA789-RIPE
- **mnt-by:** LIR-MNT
- **notify:** noc@example.org
- **mnt-nfy:** list@example.org
- **abuse-mailbox:** abuse@example.org
- **auth:** MD5-PW $tst^89H$
Inverse Lookup: mnt-ref

```
inet6num: 2001:db8::/32
  descr: My IPv6 Range
  mnt-by: RIPE-NCC-HM-MNT
  mnt-lower: LIR-MNT
  mnt-routes: SECOND-MNT
  org: ORG-BB2-RIPE
  admin-c: JD1-RIPE
  tech-c: LA789-RIPE

aut-num: 64551
  descr: My AS Number
  mnt-by: RIPE-NCC-END-MNT
  mnt-by: LIR-MNT
  org: ORG-BB2-RIPE
  admin-c: JD1-RIPE
  tech-c: LA789-RIPE

person: John Doe
  nic-hdl: JD1-RIPE
  address: sesamestreet 1
  phone: +1 555 0101
  e-mail: john@example.org
  mnt-by: LIR-MNT

role: BlueLight Staff
  nic-hdl: BLS77-RIPE
  admin-c: JD1-RIPE
  address: sesamestreet 1
  phone: +1 555 0101
  mnt-by: LIR-MNT
```

- \texttt{mnt-ref} LIR-MNT
Questions?
New Developments
RESTful API

• Newly developed
• Query service released September 2011
• Update service currently in beta
  - Planned to be released later this year
• Uses XML or JSON
  - Plain html currently available for testing, this will be removed later on!

• Details on http://labs.ripe.net
Geolocation (beta)

- Geolocation services are provided by third parties, the RIPE NCC has no control over it.
- Wrong geolocation data can cause problems:
  - Websites default to the wrong language
  - Location based content is blocked
- Transfers will only make this worse
- **Optionally** adding this information to the RIPE Database:
  - Approximate location
  - Preferred language
Questions?
Practical Scenario 1

Changing the Password Of a Maintainer
This maintainer is protecting itself
Maintainer Protecting other Objects

This maintainer is protecting itself...

...and the role object

RIPE DB Tips and Tricks Tutorial, ENOG2
The Maintainer With its Old Password

<table>
<thead>
<tr>
<th>Role</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>mntner:</td>
<td>LIR-MNT</td>
</tr>
<tr>
<td>admin-c:</td>
<td>JE1787-RIPE</td>
</tr>
<tr>
<td>tech-c:</td>
<td>LA789-RIPE</td>
</tr>
<tr>
<td>auth:</td>
<td>MD5-PW $tst^89H$</td>
</tr>
<tr>
<td>mnt-by:</td>
<td>LIR-MNT</td>
</tr>
<tr>
<td>notify:</td>
<td><a href="mailto:noc@example.org">noc@example.org</a></td>
</tr>
<tr>
<td>mnt-nfy:</td>
<td><a href="mailto:list@example.org">list@example.org</a></td>
</tr>
<tr>
<td>abuse-mailbox:</td>
<td><a href="mailto:abuse@example.org">abuse@example.org</a></td>
</tr>
<tr>
<td>source:</td>
<td>RIPE</td>
</tr>
</tbody>
</table>

Password: secret35

Hashed password: $tst^89H$
You Want to Change this Password

- Now let’s say you want to change the password
  - from ‘secret35’
  - to ‘tiger72’
Hash the New Password

RIPE Database Authorisation Password Generator

The MD5-PW hash has been generated

Password: tiger72
Generated MD5-PW: $1$cArJD0

It is advisable to test your new password with the Verify form below.

https://apps.db.ripe.net/crypt/
Add a New, Second auth Line

authenticate with the old password
Remove Old auth Line

- Voilà, you have changed the password of the mntner!
The Maintainer with its New Password

mntner: LIR-MNT

<table>
<thead>
<tr>
<th>admin-c:</th>
<th>JD1-RIPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>tech-c:</td>
<td>LA789-RIPE</td>
</tr>
<tr>
<td>auth:</td>
<td>MD5-PW</td>
</tr>
<tr>
<td>mnt-by:</td>
<td>LIR-MNT</td>
</tr>
<tr>
<td>notify:</td>
<td><a href="mailto:noc@example.org">noc@example.org</a></td>
</tr>
<tr>
<td>mnt-nfy:</td>
<td><a href="mailto:list@example.org">list@example.org</a></td>
</tr>
<tr>
<td>abuse-mailbox:</td>
<td><a href="mailto:abuse@example.org">abuse@example.org</a></td>
</tr>
<tr>
<td>source:</td>
<td>RIPE</td>
</tr>
</tbody>
</table>

Password: tiger72

Hashed password: \$1$cArJD0
Forgot Your Maintainers’ Password?

• Request us to reset it!
  
  - [https://apps.db.ripe.net/change-auth/](https://apps.db.ripe.net/change-auth/)

**Request to Change Authorisation of my MNTNER Object**

Changing your MNTNER object password is a three-step process:

- **Step 1:** Fill out details online to generate a request form. A ticket number will be emailed to you.
- **Step 2:** Print the request form (PDF) on company letter-headed paper, sign all pages and scan it.
- **Step 3:** Email the signed form to ripe-dbm@ripe.net and include the ticket number in the subject line.

**Search Object**

MNTNER name: [ ]

[Search]
Practical Scenario 2
Replacing the Maintainer
Protecting Your Object
Finding All Objects Protected by the Maintainer

• You want to find all objects that are protected by the maintainer

• `-i mnt-by LIR-MNT`
Replacing the Maintainer: the Original Situation

**Role:** EXCC Tech Staff

- **Address:** Singel 258
- **Address:** 1016 AB Amsterdam
- **Phone:** +31 20 535 4444
- **Email:** tech@example.org
- **NIC-HDL:** LA789-RIPE
- **Admin-C:** JD1-RIPE
- **MNT-By:** LIR-MNT
- **Source:** RIPE

**MNTNER:** LIR-MNT

- **Admin-C:** JD1-RIPE
- **Tech-C:** LA789-RIPE
- **MNT-By:** LIR-MNT
- **Notify:** noc@example.org
- **MNT-NFY:** list@example.org
- **Auth:** MD5-PW $1$cArJD0

**Password:** tiger72

**Hashed Password:** $1$cArJD0
Replacing the Maintainer: Add 2nd Maintainer

**role:** EXCC Tech Staff

- **address:** Singel 258
- **address:** 1016 AB Amsterdam
- **phone:** +31 20 535 4444
- **email:** tech@example.org
- **nic-hdl:** LA789-RIPE
- **admin-c:** JD1-RIPE
- **mnt-by:** LIR-MNT
- **mnt-by:** ABC-MNT
- **source:** RIPE

**mntner:** LIR-MNT

- **admin-c:** JD1-RIPE
- **tech-c:** LA789-RIPE
- **mnt-by:** LIR-MNT
- **notify:** noc@example.org
- **mnt-nfy:** list@example.org
- **auth:** MD5-PW $1$cArJD0

**mntner:** ABC-MNT

- **admin-c:** JD1-RIPE
- **tech-c:** LA789-RIPE
- **mnt-by:** LIR-MNT
- **notify:** noc@example.org
- **mnt-nfy:** list@example.org
- **auth:** MD5-PW $1$koW45a

**Password:** mouse881

**Hashed password:** $1$koW45a
Remove the Original Maintainer

**role:** EXCC Tech Staff

- **address:** Singel 258
- **address:** 1016 AB Amsterdam
- **phone:** +31 20 535 4444
- **email:** tech@example.org
- **nic-hdl:** LA789-RIPE
- **admin-c:** JD1-RIPE
- **mnt-by:** ABC-MNT
- **source:** RIPE

**mntner:** ABC-MNT

- **admin-c:** JD1-RIPE
- **tech-c:** LA789-RIPE
- **mnt-by:** LIR-MNT
- **notify:** noc@example.org
- **mnt-nfy:** list@example.org
- **auth:** MD5-PW $1$koW45a
Practical Scenario 3

Replacing the Contact Person
Using a Role Object: Original Situation

**person:** John Doe
- **nic-hdl:** JD1-RIPE
- **address:** sesamestreet 1
- **phone:** +1 555 0101
- **email:** john@xmpl.org
- **mnt-by:** LIR-MNT

**inet6num:** 80.35.61.0
- **tech-c:** BLS77-RIPE

**role:** Bluelight Staff
- **nic-hdl:** BLS77-RIPE
- **tech-c:** JD1-RIPE
- **mnt-by:** CDE-MNT
- **email:** tc@xmpl.org
Original Situation with Maintainers

- **person:** John Doe
  - **nic-hdl:** JD1-RIPE
  - **address:** sesamestreet 1
  - **phone:** +1 555 0101
  - **email:** john@xmpl.org
  - **mnt-by:** LIR-MNT

- **mntner:** LIR-MNT
  - **admin-c:** JD1-RIPE
  - **tech-c:** LA789-RIPE
  - **mnt-by:** LIR-MNT
  - **auth:** MD5-PW $tst^89H$

- **inet6num:** 80.35.61.0
  - **tech-c:** BLS77-RIPE

- **role:** Bluelight Staff
  - **nic-hdl:** BLS77-RIPE
  - **tech-c:** JD1-RIPE
  - **mnt-by:** CDE-MNT
  - **email:** tc@xmpl.org

- **mntner:** CDE-MNT
  - **admin-c:** JD1-RIPE
  - **tech-c:** LA789-RIPE
  - **mnt-by:** CDE-MNT
  - **auth:** MD5-PW $zDF^20P$

Password: secret35
Password: kitty12
Add a Second Person to the Role Object

**person:** John Doe  
nic-hdl: JD1-RIPE  
address: sesamestreet 1  
phone: +1 555 0101  
email: john@xmpl.org  
mnt-by: LIR-MNT

**inet6num:** 80.35.61.0  
technologystaff: BLS77-RIPE

**mntner:** LIR-MNT  
admin-c: JD1-RIPE  
technologist: LA789-RIPE  
mnt-by: LIR-MNT  
auth: MD5-PW $tst^89H$

**person:** James Smith  
nic-hdl: JS123-RIPE  
address: Dam Square 1  
phone: +31 535 7111  
e-mail: js@xmpl.org  
mnt-by: ABC-MNT

**role:** Bluelight Staff  
nic-hdl: BLS77-RIPE  
technologist: JD1-RIPE  
mnt-by: CDE-MNT  
email: tc@xmpl.org

**mntner:** ABC-MNT  
admin-c: JS123-RIPE  
technologist: LA789-RIPE  
mnt-by: ABC-MNT  
auth: MD5-PW $tst^89H$

**mntner:** CDE-MNT  
admin-c: JD1-RIPE  
technologist: LA789-RIPE  
mnt-by: CDE-MNT  
auth: MD5-PW $DF^2oP$

**mntner:** CDE-MNT  
admin-c: JD1-RIPE  
technologist: LA789-RIPE  
mnt-by: CDE-MNT  
auth: MD5-PW $DF^2oP$

Password: tiger72
Adding the Second Person Object

**person:** John Doe
- **nic-hdl:** JD1-RIPE
- **address:** sesamestreet 1
- **phone:** +1 555 0101
- **email:** john@xmpl.org
- **mnt-by:** LIR-MNT

**mntner:** LIR-MNT
- **admin-c:** JD1-RIPE
- **tech-c:** LA789-RIPE
- **mnt-by:** LIR-MNT
- **auth:** MD5-PW $tst^89H$

**role:** Bluelight Staff
- **nic-hdl:** BLS77-RIPE
- **tech-c:** JD1-RIPE
- **mnt-by:** CDE-MNT
- **email:** tc@xmpl.org

**person:** James Smith
- **nic-hdl:** JS123-RIPE
- **address:** Dam Square 1
- **phone:** +31 535 7111
- **e-mail:** js@xmpl.org
- **mnt-by:** ABC-MNT

**mntner:** ABC-MNT
- **admin-c:** JD1-RIPE
- **tech-c:** LA789-RIPE
- **mnt-by:** ABC-MNT
- **auth:** MD5-PW $tst^89H$

**mntner:** CDE-MNT
- **admin-c:** JD1-RIPE
- **tech-c:** LA789-RIPE
- **mnt-by:** CDE-MNT
- **auth:** MD5-PW $DF^2oP$

**mntner:** LIR-MNT
- **admin-c:** JD1-RIPE
- **tech-c:** LA789-RIPE
- **mnt-by:** LIR-MNT
- **auth:** MD5-PW $tst^89H$

**mntner:** CDE-MNT
- **admin-c:** JD1-RIPE
- **tech-c:** LA789-RIPE
- **mnt-by:** CDE-MNT
- **auth:** MD5-PW $DF^2oP$

**auth:** MD5-PW $tst^89H$

**auth:** MD5-PW $1$cAr0J

**auth:** MD5-PW $DF^2oP$
New Situation: Two Contacts

person: John Doe
nic-hdl: JD1-RIPE
address: sesamestreet 1
phone: +1 555 0101
email: john@xmpl.org
mnt-by: LIR-MNT

inet6num: 80.35.61.0
technical-c: BLS77-RIPE

person: James Smith
nic-hdl: JS123-RIPE
address: Dam Square 1
phone: +31 535 7111
e-mail: js@xmpl.org
mnt-by: ABC-MNT

mnt-by: CDE-MNT

role: Bluelight Staff
nic-hdl: BLS77-RIPE
technical-c: JD1-RIPE
technical-c: JS123-RIPE
mnt-by: CDE-MNT
email: tc@xmpl.org
Questions?
The End!