



RIPE NCC
RIPE NETWORK COORDINATION CENTRE

RIPE Database Usability



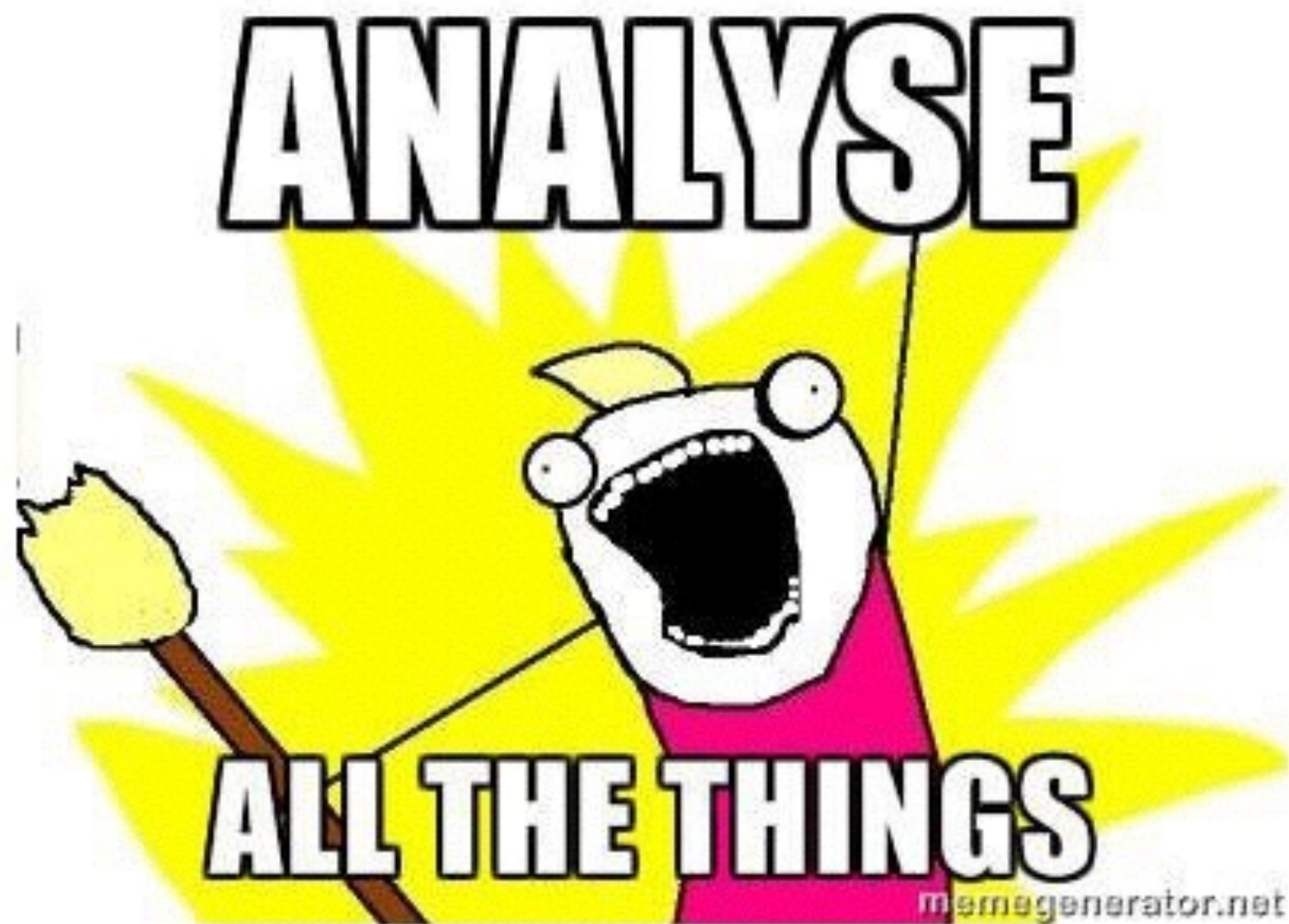
Data Driven

</buzzword>

Understanding the User



- What type of objects are being created?
- What method is used to do the update?
 - Single line form, text area, email, API
- Which of those are the most error prone?
 - Which errors are thrown by the Database?
 - Are successful updates only by trial & error?
- Which authentication method is used?



Top 10 Error Categories (May '16)



1.	domain	4,315	45.26%
2.	inetnum	1,794	18.82%
3.	route	747	7.84%
4.	inetnum.inetnum	299	3.14%
5.	inetnum.netname	208	2.18%
6.	person.person	161	1.69%
7.	domain.domain	118	1.24%
8.	organisation	117	1.23%
9.	person.phone	114	1.20%
10.	organisation.abuse-c	103	1.08%

Errors Creating an inetnum (May '16)



	1,713 % of Total: 0.37% (463,165)
1. Missing required "org:" attribute	251 (14.74%)
2. inetnum parent has incorrect status: ASSIGNED PA	236 (13.86%)
3. inetnum parent has incorrect status: ALLOCATED PA	183 (10.75%)
4. Enforced new keyword specified, but the object already exists in the database	171 (10.04%)
5. Adding or removing a RIPE NCC maintainer requires administrative authorisation	73 (4.29%)
6. Authorisation for parent [inetnum] 185.0.0.0 - 185.255.255.255 failed using "mnt-by:" not authenticated by: RIPE-NCC-HM-MNT	53 (3.11%)
7. status value cannot be changed, you must delete and re-create the object	52 (3.05%)
8. Referenced organisation has wrong "org-type". Allowed values are [IANA, RIR, LIR]	36 (2.11%)
9. inetnum parent has incorrect status: SUB-ALLOCATED PA	30 (1.76%)
10. Authorisation for parent [inetnum] 186.0.0.0 - 186.255.255.255 failed using "mnt-lower:" not authenticated by: RIPE-NCC-HM-MNT	17 (1.00%)



Feature Development

Immediate Validation



Create "inetnum" object

Create in text area

Please enter the maintainers you would like to use as mnt-by

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inetnum

inetnum 193.0.0.0 - 193.0.7.255 already exists

193.0.0.0 - 193.0.7.255



netname

The name of the range of IP address space.



country

Identifies the country as a two-letter ISO 3166 code, e.g. NL



admin-c

Nic-handle of an administrative contact.



tech-c

Disable Values That Cannot be Edited



- RIPE Database <<
- Query and Update >
- Create ▾
 - Create an object
 - Create maintainer and person pair
- Passwords >

Modify "inetnum" object

[Edit in text area](#)

Please enter the maintainers you would like to use as mnt-by

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inetnum

193.0.0.0 - 193.0.7.255



netname

RIPE-NCC



descr

RIPE Network Coordination Centre



org

ORG-RIEN1-RIPE



descr

Amsterdam, Netherlands



country

NL



admin-c

BRD-RIPE



tech-c

OPS4-RIPE



status

ASSIGNED PI



source

RIPE



Autocomplete Everywhere



Create "route" object

Create in text area

Please enter the maintainers you would like to use as mnt-by

ALEXBAND-MNT ★ ✕

RIPE-NCC-MNT ★ 🔒



route

Specifies the prefix of the interAS route.



origin

AS2016



AS2016 / Otaniemi Science Park Tekniikantie 17 SF-02150 Espoo FI

AS201600 / Grossgemeinschaftsantennenanlage Oberes Sprottental e.V.

AS201601 / Astrec Data OU

AS201602 / NEWTEC S.R.L.

AS201603 / AIRNET s.r.o.

AS201604 / Digital River World Payments AB

AS201605 / Viapost Services Sas

AS201606 / CISC "DAMAY INTERNATIONAL"

By

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Cancel

Submit

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Autocomplete Everywhere



org-name
Specifies the name of the organisation in ASCII-only.

org-type
OTHER

address
Specifies the full postal address of a contact.

e-mail
The email address of a contact person.

abuse-c
complaints

AC23777-RIPE / Abuse **Complaints** / abuse@spitfireuk.net

AR20794-RIPE / Abuse-C Role / **complaints**@italtd.com

AR33425-RIPE / Abuse-C Role / **complaints**_abuse@intracomme.com

BT3178-RIPE / BCS Technologies Service Desk / **complaints**-desk@bcstechno.net

ND2617-RIPE / NOC Department / **complaints**@cheetahnode.com

SAD86-RIPE / Seedboxes.cc Abuse Department / **complaints**@seedboxes.cc

TBCM1-RIPE / TOV Budkomplekt **complaints** manager / budcomplect@gmail.com

By

ns and Conditions

Cancel Submit

Autocomplete Everywhere



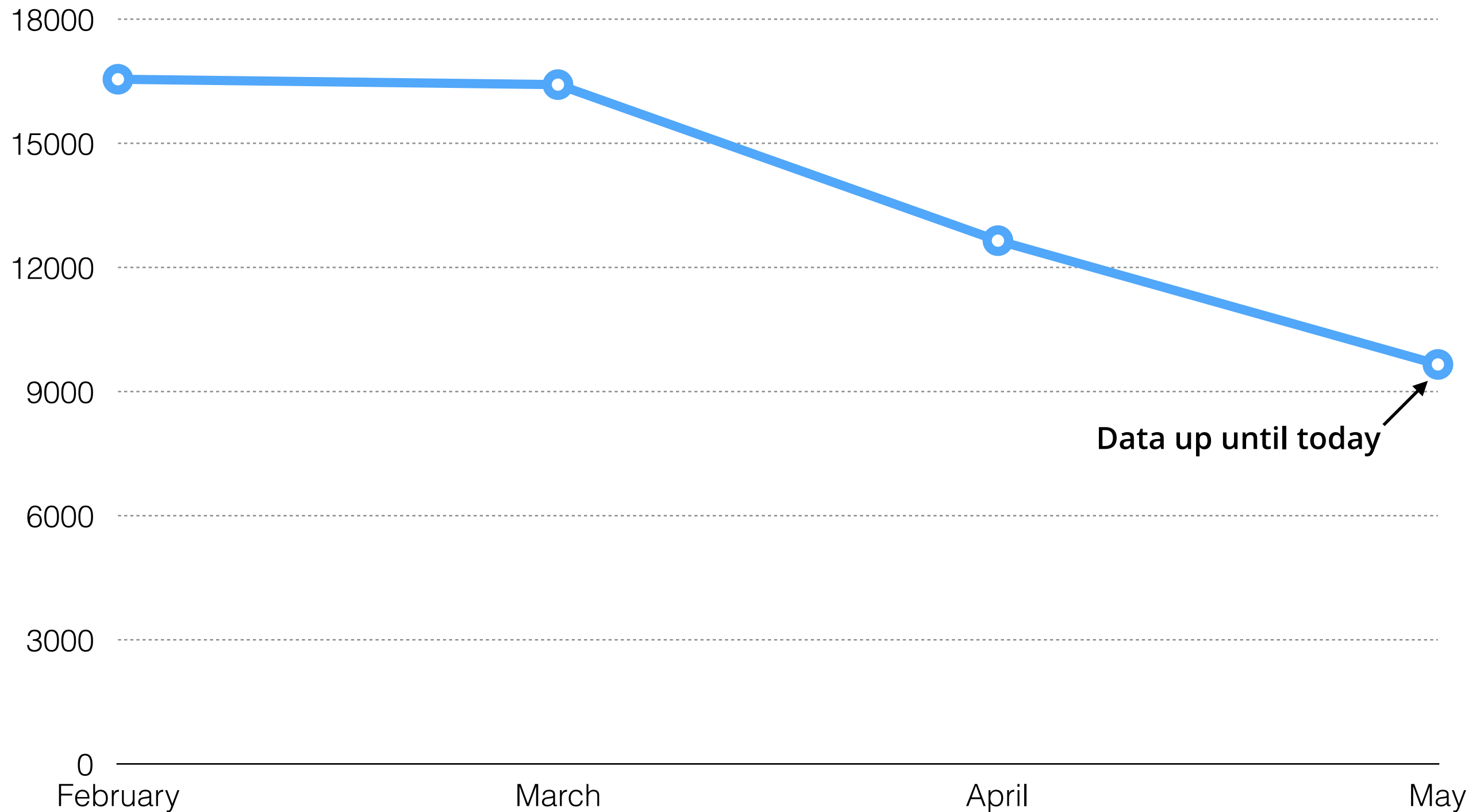
inetnum	
Specifies the range of IPv4 addresses in dash or CIDR notation.	↓ + 🗑️ ?
netname	
The name of the range of IP address space.	↓ + 🗑️ ?
country	
Identifies the country as a two-letter ISO 3166 code, e.g. NL	↓ + 🗑️ ?
uni	🔍
United Arab Emirates [AE]	↓ + 🗑️ ?
United Kingdom [GB]	
Reunion [RE]	↓ + 🗑️ ?
Tunisia [TN]	
United States Minor Outlying Islands [UM]	↓ + 🗑️ ?
source	
RIPE	↓ + 🗑️ ?

Weird Things We Uncovered



- “Syntax error in 77.91.77.80 – 77.91.77.83”
- Nothing seemingly wrong with that, but...
 - regular hyphen
 - “n-dash”
 - “m-dash”
- We convert all types of dashes to a hyphen

Total User Errors per Month



Planned Work



- **Lock down “status:” attribute values**
 - After entering a range, populate possible status values
- **Make Reverse DNS setup less error prone**
 - Step by step process with domain object as result
- **Personalised Authorisation**
- **Manage maintainers**



There's more...

Force Delete (Previously “Reclaim”)



RIPE NCC
RIPE NETWORK COORDINATION CENTRE

Manage IPs and ASNs > Analyze

You are here: Home > Manage IPs and ASNs > R

RIPE Database <<
Query and Update >
Create >
Create an object
Create maintainer and person pair
Single text area update (syncupdates) >
Abuse Contact >
Passwords >

Password authentication

Select a maintainer to authenticate the update operation.

AS286-MNT

Provide the password for the selected maintainer

☒ Also authorise my RIPE NCC Access account for this maintainer. [Learn more.](#)

Force-delete this object? [Learn More.](#)

62.41.0.0/20

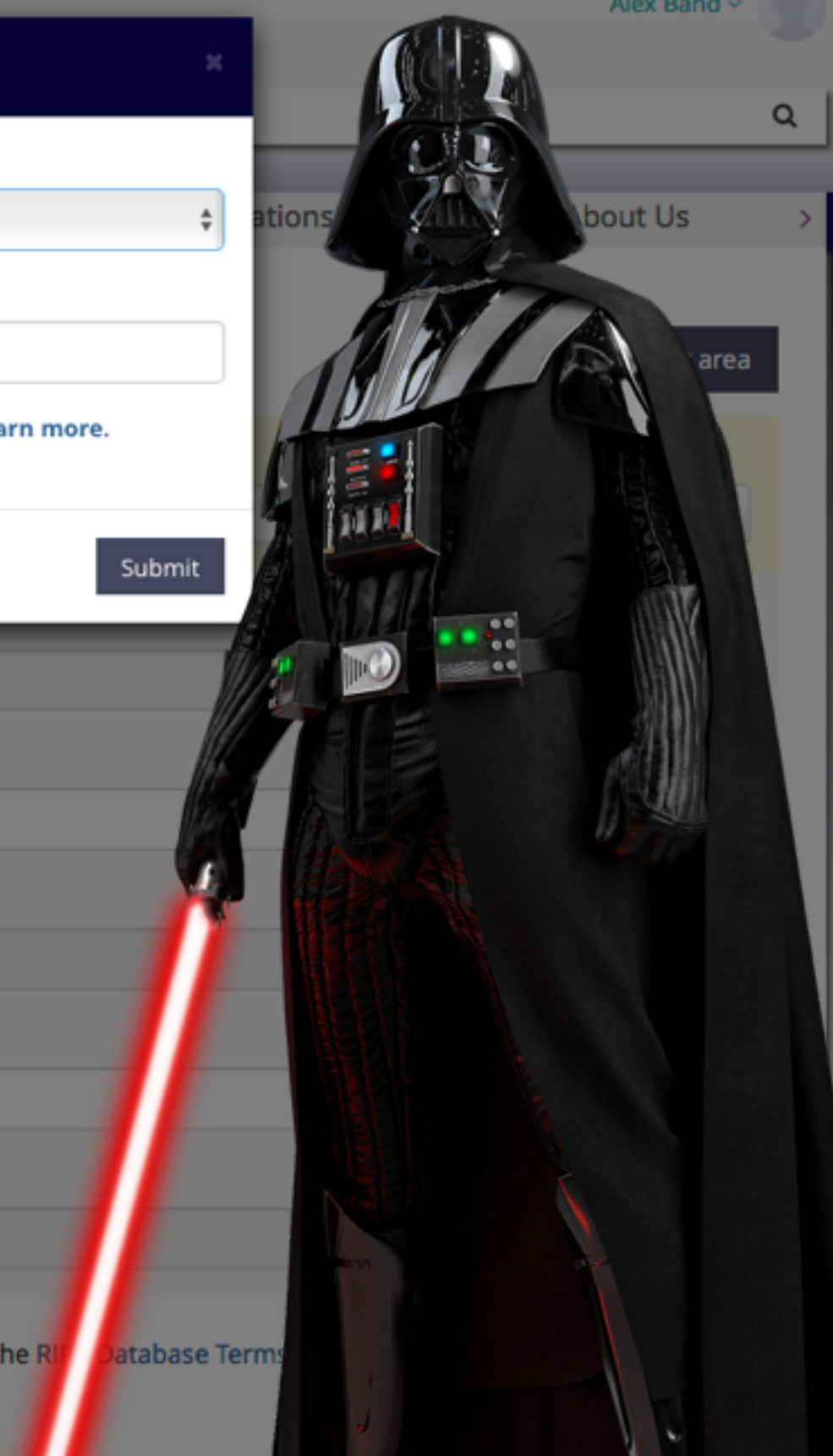
descr
KPN B.V.

origin
AS286

notify
***@kpn.com

source
RIPE

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



Textupdates



Alex Band



RIPE Database (Whois)

Website

Search IP Address or ASN



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RIPE Database <<

Query and Update >

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[Create an object](#)

[Create maintainer and person pair](#)

Passwords >

Edit in single lines

Modify "aut-num" object

RPSL to modify a single object

```
aut-num:      AS3333
as-name:      RIPE-NCC-AS
descr:        Reseaux IP Europeens Network Coordination Centre (RIPE NCC)
org:          ORG-RIEN1-RIPE
remarks:
remarks:
remarks:      +-----+
remarks:      |                AS3333 RIPE-NCC-AS                |
remarks:      |                RIPE NCC (Network Coordination Centre)                |
remarks:      +-----+
remarks:      |
remarks:      | RIPE NCC (AS3333) operates an open peering policy:
remarks:      |
remarks:      | We advertise only routes from AS-RIPENCC
remarks:      |
remarks:      | We will accept any routes offered including TRANSIT!
remarks:      |
remarks:      | We will update our aut-num object in the RIPE Whois
remarks:      | Database and kindly request you to update yours
remarks:      |
```

You can optionally use **password:-**attribute to prevent an interactive password popup or to provide multiple passwords.

By submitting this form you explicitly express your agreement with the [RIPE Database Terms and Conditions](#)

Delete this object

Cancel

Submit

Updated All Help Text (Before)



RIPE Database (Whois)

Website

Search IP Address or ASN



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Create "organisation" object

Please enter the maintainers you would like to use

ALEXBAND-MNT ★ ✕



organisation



Specifies the ID of an organisation object. When creating an object an 'AUTO' ID by setting the value of the attribute to 'AUTO-1' or 'AUTO-1' so the database will assign the ID automatically.

"The 'ORG-' string followed by 2 to 4 characters, followed by up to 5 digits followed by a source specification. The first digit must not be '0'. Source specification starts with '-' followed by source name up to 9-character length.

org-name



Specifies the name of the organisation that this organisation object represents in the RIPE Database. This is an ASCII-only text attribute. The restriction is because this attribute is a look-up key and the whois protocol does not allow specifying character sets in queries. The user can put the name of the organisation in non-ASCII character sets in the 'descr:' attribute if required. "Made up of letters, digits, the character underscore "_", and the character hyphen "-"; the first character of a name must be a letter, and the last character of a name must be a letter or a digit. The following words are reserved by RPSL, and they can not be used as names: any as-any rs-any peers and or not atomic from to at action accept announce except refine networks into inbound outbound. Names starting with certain prefixes are reserved for certain object types. Names starting with "as-" are reserved for as set names. Names starting with "rs-" are reserved for route set names. Names starting with "rtrs-" are reserved for router set names. Names starting with "fltr-" are reserved for filter set names. Names starting with "prng-" are reserved for peering set names. Names starting with "irt-" are reserved for irt names.

Send UI Feedback

Updated All Help Text (After)



Alex Band



RIPE Database (Whois)

Website

Search IP Address or ASN



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Create "organisation" object

Create in text area

Please enter the maintainers you would like to use as mnt-by

RIPE-NCC-MNT ★ 🔒



organisation

AUTO-1



Description

Specifies the ID of an organisation object. Leave this value on "AUTO-1" to let the database assign the ID automatically.

Syntax

When using "AUTO-1", by default the first characters of the organisation name are used to create the org-id. For example, "Acme Corporation" will result in a NIC handle such as ORG-AC9999-RIPE. You can enter up to 4 additional characters after "AUTO-1" to influence which characters are used. For example, specifying "AUTO-1BAR" will result in an org-id such as ORG-BAR9999-RIPE, regardless of the specified organisation name.

org-name

Specifies the name of the organisation in ASCII-only.



Description

Specifies the name of the organisation that this object represents in the RIPE Database. This is an ASCII-only text attribute. You can specify the name of the organisation in [Latin-1 character encoding](#) in the "descr:" attribute, if required.

Syntax

Made up of letters, digits, the underscore "_" and hyphen "-". The first character of a name must be a letter, and the last character a letter or digit. Note that [certain words are reserved by RPSL](#) and cannot be used.

org-type

Report a bug

Objects with Joint Responsibility



- Deprecated Object Editors
- One LIR maintainer on all objects with joint responsibility

Maintainer

By setting your default maintainer you will be able to modify specific attributes of your allocation and ORGANISATION objects in the RIPE Database.



Default maintainer

EXAMPLE-MNT

exam

EXAMPLE-MNT

MNT-EXAMEDIA





Questions

