RDAP in .CZ

ROW 3, Prague

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Agenda

- Motivations

- Implementation

- Experiences

- Future

Motivations

- Request from registrant of co.cz to redirect whois queries

- Doing redirects in port 43 whois is not easy

- .. lets wait what new protocol can provide

Motivations

- Registrars are using port 43 whois for various purposes:

    - Simpler for easy tasks then EPP

    - Domain availability service

- Port 43 whois is strictly rate-limited, however registrars IP addresses has less strict limits.

- Current manual firewall changes don't scale - rate limiting based on authentication would be better

Motivations

- We provide web application called DomainBrowser – authenticated web whois

    - For registrants to see all their domains, contacts, nameservers and dnssec keys regardless on registrar ownership

    - Each contact in registry can possess authentication through our identity service mojeID

- RDAP with authentication can complete this service by adding CLI/API access

Motivations

- Newborn protocol needs implementations to confirm it is viable

- Testing new technologies is part of CZ.NIC strategy

Implementation

- We implemented RDAP service as a "copy" of port 43 whois

  - The same data, policies, rate limits…

- Frontend part made in django-rest-framework

- Launched at the end of 2014 (based on drafts)

Implementation

- Supported queries:
  - domain, entity, nameserver
  - no search possibility
  - no authentication
- Specific extensions
  - cznic_nsset, cznic_keyset
  - our own set of object states

Implementation

- https://rdap.nic.cz/domain/nic.cz

- https://rdap.nic.cz/entity/CZ-NIC

- https://rdap.nic.cz/nameserver/a.ns.nic.cz

- https://rdap.nic.cz/cznic_nsset/CZ.NIC

- https://rdap.nic.cz/cznic_keyset/CZ.NIC

Experiences

- RFC's released in March

- Short after we participated in rdap.viagenie.ca tests and realized that there are quite a few differences between RFC's and drafts

- New version is just being tested

Experiences

- Registrars as entities?

- We have separated namespace for contact handles and registrar handles => collisions

- So currently registrars are not considered as entities

- No way how to query registrar details like in port 43 whois

Experiences

- Different values in 'status' fields

- Majority could be mapped to fields registred in RDAP JSON Values registry operated by IANA, but there is still overlap

- Can we/Should we register all these values?

Future

- Get compliant with RFC's

- Better marketing in our community

- Offering redirection service for registrants

- Implement searches (how about domain by entity?)

- Integration with our Identity service
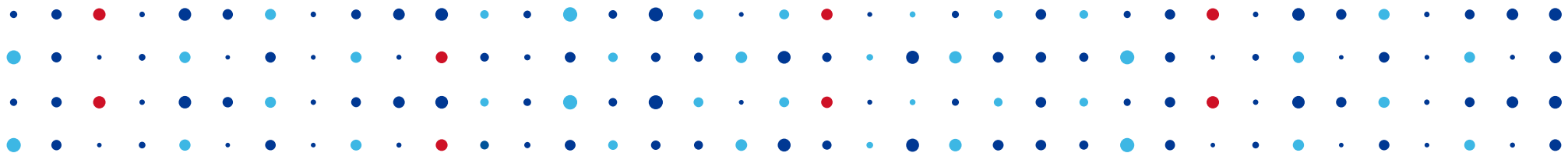
Thank You

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