

Contact data validation in FRED

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Agenda

- FRED
- To validate or not to validate
- Other approaches
- Our way
- Keeping contacts data valid
- Conclusion



FRED

- Open source registry software from CZ.NIC in development since 2007
- Used by CZ, AO, TZ, CR, FO, EE, AL
- Runs on Linux
 - Installation packages for Ubuntu and Fedora
- Full featured - EPP, ENUM, DNSSEC, IDN, WHOIS, ...
- <http://fred.nic.cz>



To validate or not to validate

- Registry is not for anonymous entities
- Major reasons for accurate data:
 - Resolution of legal issues
 - Resolution of technical issues (spam etc..)
 - Securing domains by notifying owners about events
- But there is a cost associated with validation



SAC058

- SSAC Report on Domain Name Registration Data Validation (March 2013)
- Reasons for validation
- Taxonomy
 - Syntactical validation
 - Operational validation
 - Identity validation
- What attributes are subject of validation



Validation by registrars

- Registrars are responsible for contact data
 - According contract, they should provide sufficient effort for validation of data.
- New RAA for ICANN accredited registrars
 - Mandatory requirements for validation
 - Hardly applicable to our registrars
- Registry could be better place for validation



Different approaches

- Presentations from TechDay in Costa Rica:
- Turkey
 - Registrants send documents via web portal
- Estonia
 - For locals - integration with local eID and governmental registries
 - For foreigners – after receiving money, registrars send bank account identity embedded in EPP



Our way

- Two complementary approaches
- Voluntary and automated
 - Send one-time codes to email, phone and postal address
- Selective and manual
 - Pro-active seeking of suspicious contacts and manual verification procedure



Voluntary

- Two phase procedure
 - Registrant enters handle of contact and codes are sent to him via email and sms
 - After collecting 2 codes, contact receives 1st grade of validation and other code is sent via snail mail to postal address
 - After entering this code, contact receives 2nd grade of validation



Voluntary

- For sms/letter delivery, we use third party web services – customizable by shell script
- Website for this process can be personalized by logo of registrar
- Level of validation is visible in EPP and WHOIS
- Contacts loose validation upon change



Voluntary

- Voluntary service must be marketed
- Marketing to registrants
 - Possibility to hide address in WHOIS
 - Small gifts (flash drive, etc..)
- Marketing to registrars
 - Level of participation of registry in co-marketing program depends on number of validated contacts



Selective

- System periodically randomly selects a group of contacts
- Each contact is first automatically checked for:
 - Syntactical correctness of data
 - Domain name of email exists and has MX records
 - Look up in available registries for streets and cities to check postal address
- Failed checks go into queue for manual checking by our helpdesk operators



Selective

- List of individual automatic checks is extensible
- Part of manual checking is written request to contact to correct data
- According registration rules, failure in manual checking may lead to dropping registration of all domains of this contact



Keeping contact data valid

- Generally hard, we try to support it by fighting with duplicities in contact data
 - More contacts user has, more probably he will forget to update them all
- We had ~ 15% of full duplicates
- Reasons? Could be simplicity of registrar interfaces



Keeping contact data valid

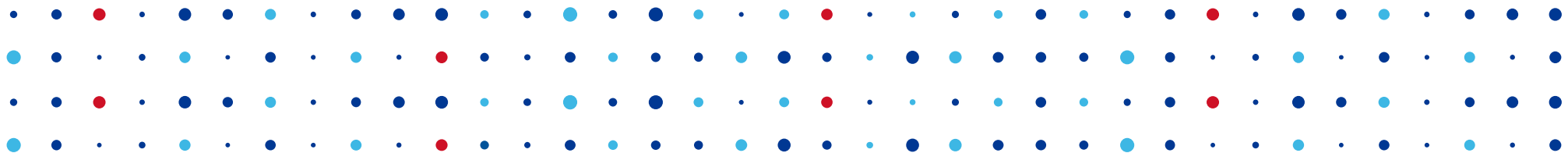
- New operation in registry – merge contact
 - Look up for full duplicates
 - Changing all linked objects to one contact
 - Delete second contact
 - Registrars/registrants are informed about result of merge operation
- Such “cleanup” is supposed to be done periodically



Conclusion

- Registry is suitable place to do validation of contact data
- Registry software can help a lot and FRED has wide support for validation, but some customization is needed
 - Integration with SMS / snail mail services
- Features and versions
 - Voluntary validation and merging – FRED-2.16
 - Selective validation – FRED-2.17 – later this year





Thank You

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