Enum in Czech Republic

CZ.NIC z.s.p.o.

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http://enum.nic.cz/

About CZ.NIC

- Special interest association of legal entities

- Founded in 1998 by group of 16 ISPs

- Open membership

- 53 members - growing

- Registry-Registrar model (17 registrars)

- Liberal registration model – no restrictions

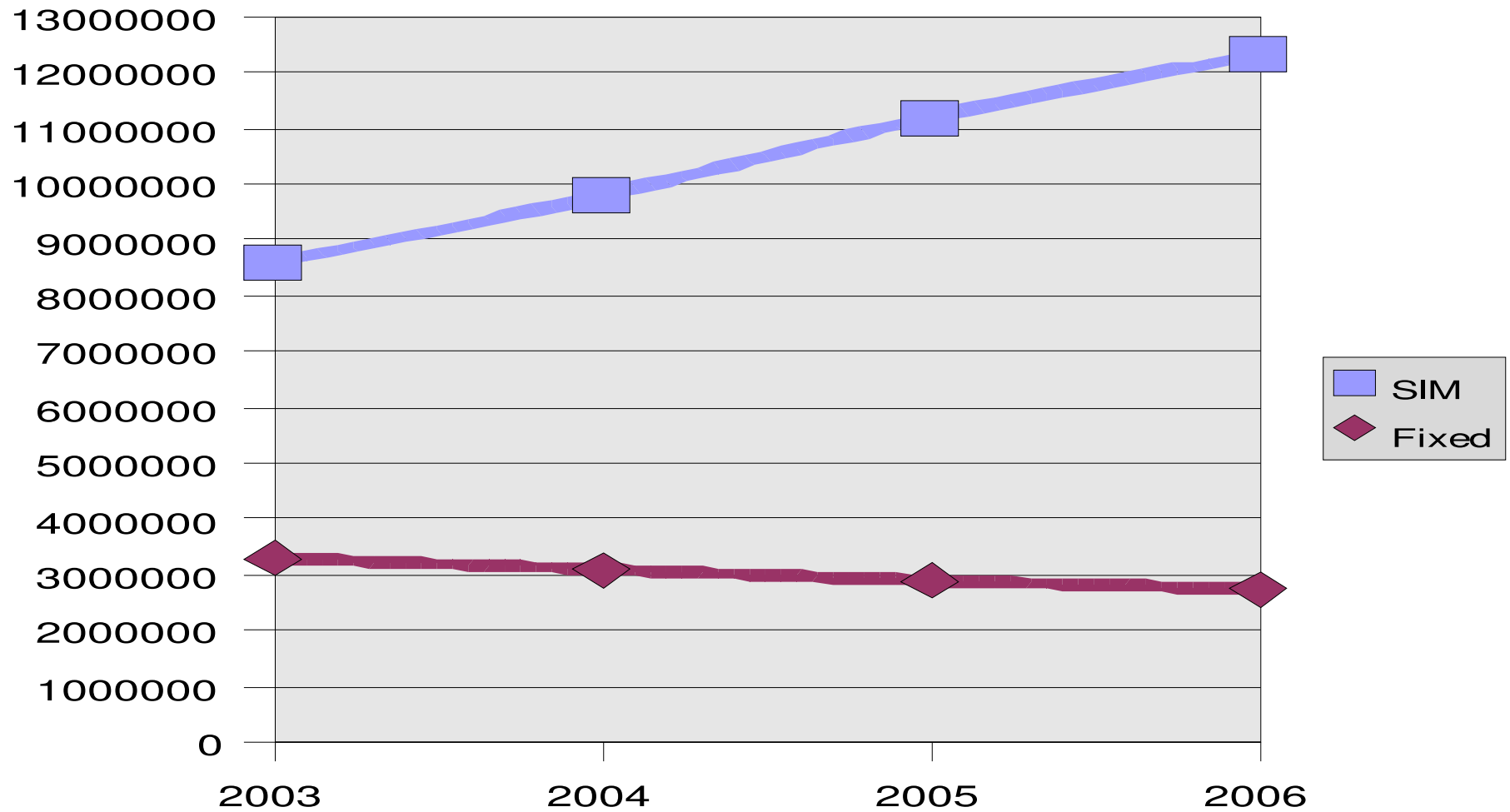- 320.000 registered domains

- Member of EURid (.EU)

Situation in Czech Republic

- Prefix +420

- Closed numbering plan – 3+9 digits

- http://www.ctu.cz/main.php?pageid=212

- Strong incumbent operator – Telefonica O2 CR

- High mobile phone penetration (over 120%)

- Interconnection costs

- Slow unbundling

- Number portability - fixed, mobile

Situation in Czech Republic

- VoIP operators – small but many

- Using VoIP own infrastructure – stronger – UPC

- Using common Internet – many (Asterisk)

- Open SIP URLs – ENUM numbers registration

- Geographical and non-geographical numbers

- Usually free intra-provider calls

- About 70.000 users

Fixed vs Mobile

0.2.4.e164.arpa history

2003   0.2.4.e164.arpa delegated to CZ.NIC

2003-2006   pre-trial (manually, >100 EUR fee)

                75 domains – academic

4/2006   Agreement with Ministry of Informatics

4/2006   new registry software development started

20.9.2006   trial launched

                2000 domains

22.1.2007   full commercial operation launched

Vision

- Help ENUM/VoIP grow

  – Cheap

  – Simple

- Fast to commercial phase

Reasons for trial

- No technical testing – ENUM just works

- Validation method tuning – different in each country

- Processes tuning

- Many thanks to AT and DE

- Keep it short

- Don't delete database

0.2.4.e164.arpa conditions

- Allowed numbers:

    - Geographical numbers

    - Non-geographical numbers (VoIP range)

    - Cellular numbers

    - Toll-free / split costs lines numbers

    - Premium services numbers

- 1 to 10 years registration

    - Validation once per 6 months :(- SMS, call, invoice

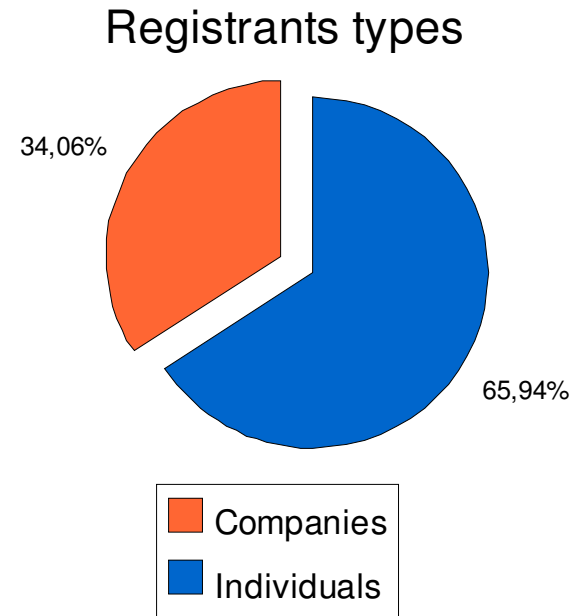# 0.2.4.e164.arpa conditions

- Single numbers or blocks

  - End user only!

  - Semi automatic process of block break-ups

- Promo price 1 CZK (0,04 EUR)

  - 2007 and 2008

  - later expected at about 150 CZK (5 EUR) - BUT

Current situation

- 11 registrars

- 4 telco operators supporting ENUM

  - VoIP operators – no big player yet

  - ENUM lookup on outgoing calls (covering about 23 500 users)

  - One operator doing registration for the customers (more on the way)

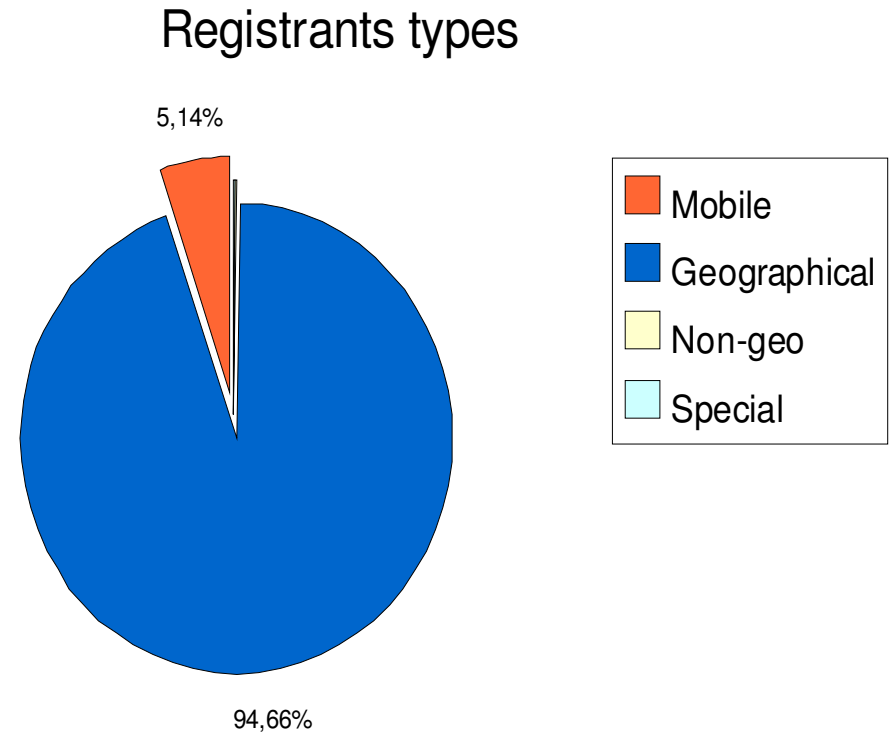 - Others support unofficially

Current situation

- 2510 domains registered

- 554 768 numbers

- Mainly individuals

- Most registrations from telco
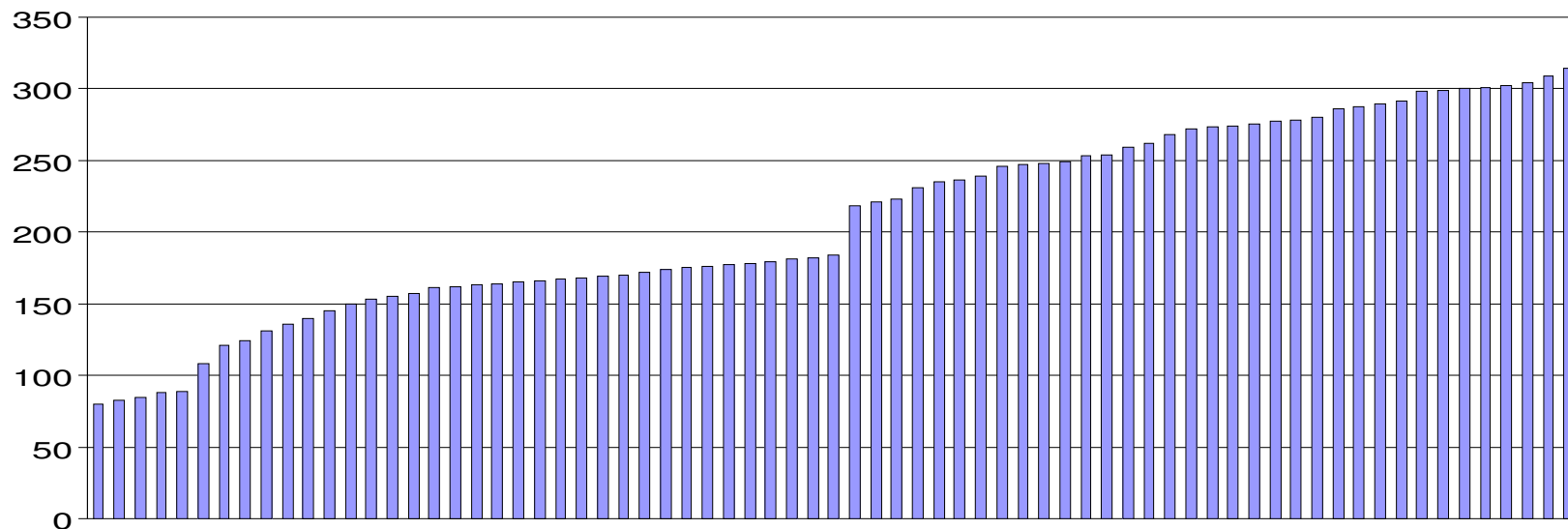
  - 2196 domains

- Active / passive registrars

Registrants types

34,06%

65,94%

Companies
Individuals

Current situation

- Majority – geographical

- 2 free number (800)

- 3 non-geographical

- 129 mobiles

Registrants types

5,14%

94,66%

Legend:
- Mobile
- Geographical
- Non-geo
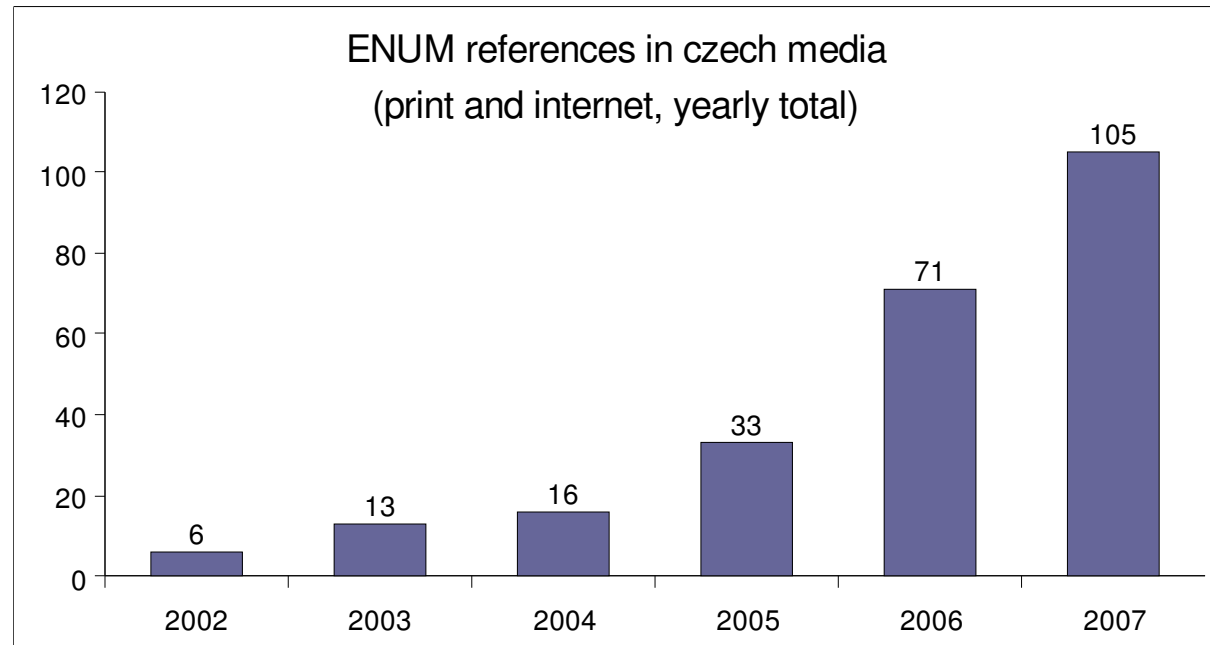- Special

Current situation

- Growth since trial (w/o telco registrations)

- 33 domains per month average

- Depends on communication

- Faster after commercial launch

0.2.4.e164.arpa registered subdomains (w/o telco)

Current situation

- High media coverage

ENUM references in czech media
(print and internet, yearly total)

Year	Value
2002	6
2003	13
2004	16
2005	33
2006	71
2007	105

- Internet and print regularly, 65:35 % ratio

- Radio and TV !

Registry software

- Free software for registration - FRED

  FREE REGISTRY FOR ENUM AND DOMAINS

  FRED

- Opensource – GPL

- EPP/SSL based
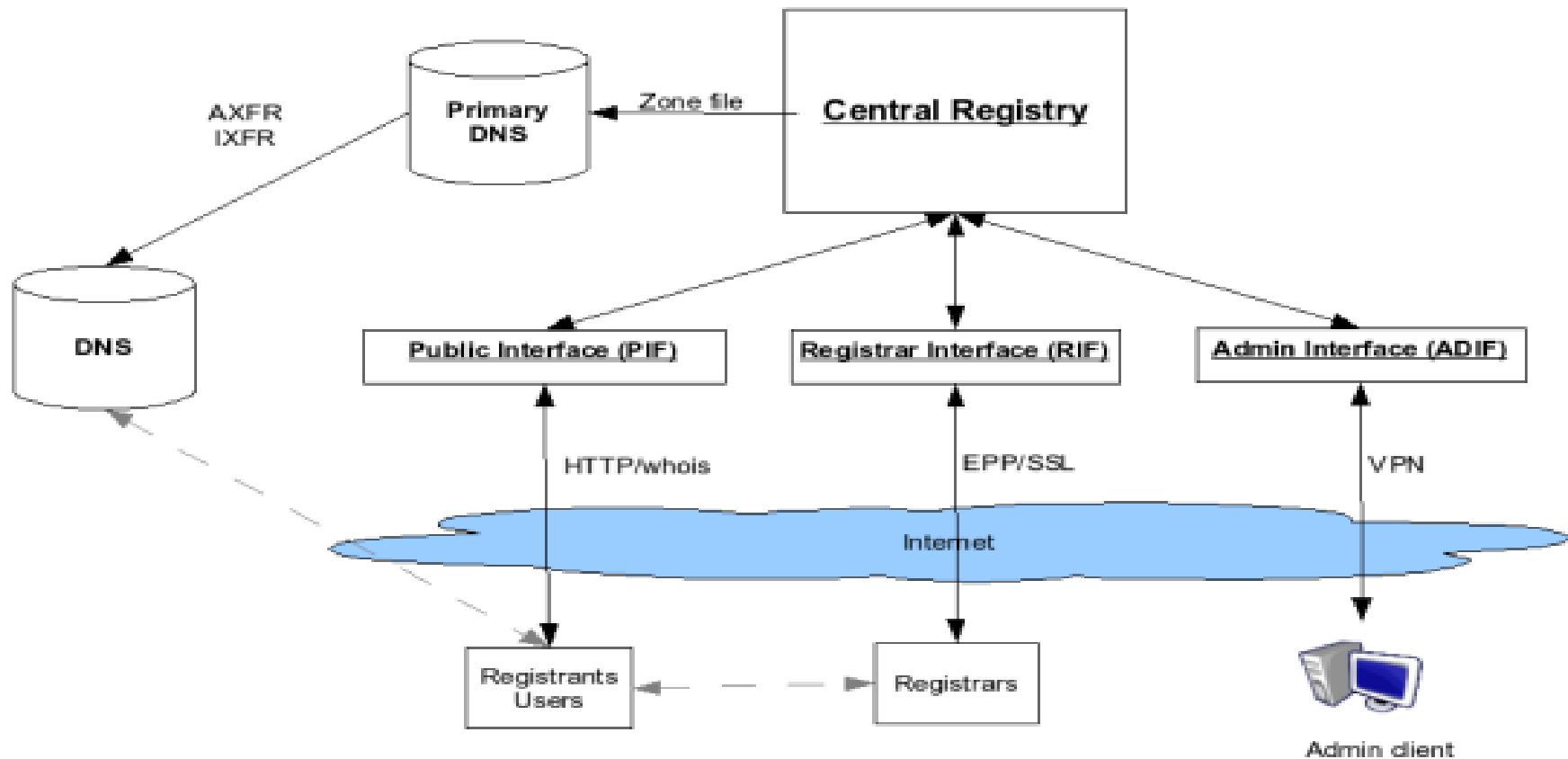
- Usable for regular domain and ENUM

- Able to manage more domains/zones

- Will be used for .cz as well (contact sharing) - 10/07

- http://fred.nic.cz

- PHP, GUI, CLI client - Live CD!
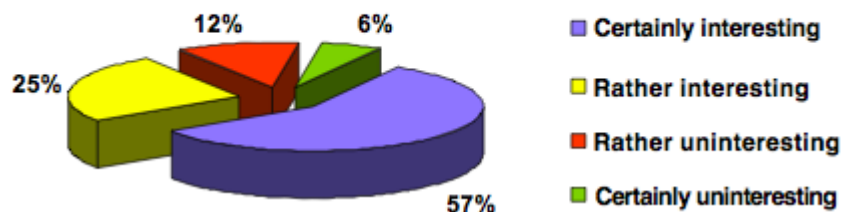
Registry software

Current issues

- ENUM too complicated for End Users

- Validation – not for telco BUT

- Snowball

- Mobile phone operators
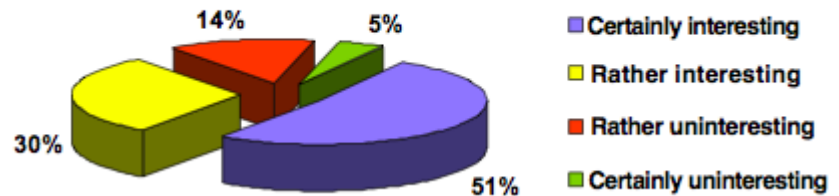
- VoIP operators

- Enterprises

Future plans

- Continue discussion with telco operators

    – HOWTOs

- Target end users (both companies and individuals)

    – Market research January 2007

Incoming calls to regular numbers for free to caller   ;   **Calls via combined GSM and Wifi/SIP phones**

12%   6%
25%
57%

- Certainly interesting
- Rather interesting
- Rather uninteresting
- Certainly uninteresting

14%   5%
30%
51%

- Certainly interesting
- Rather interesting
- Rather uninteresting
- Certainly uninteresting

Future plans

- Keep media spin

- ATL communication

  – In cooperation with telco operators

- BTL communication

  – Selected target groups

  – Central European initiative as CZ, DE, AT and PL have ENUM ? SK ?

- Czech ENUM day – September 2007

Thank you!

Questions?

http://enum.nic.cz

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