

DNSSEC deployment in .cz & 0.2.4.e164.arpa

CZ.NIC

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About CZ.NIC

- Founded in 1998 by group of 16 ISPs
- Special interest association of legal entities
- 56 members – growing (open membership)
- Registry-Registrar model (27+6 registrars)
- Liberal registration model – no restrictions
- Domain registration price – 190 CZK (8€)
- ENUM registration price – 1 CZK – support of new technology
- DNSSEC – DNS security issues

Fred

- Free registry for ENUM and domains
- Multiple domains with object sharing
- EPP over SSL
- Opensource registry implementation – GPL
- IPv6, DNSSEC
- LiveCD – easy test
- .AO launch soon!
- <http://fred.nic.cz>

FREE REGISTRY FOR ENUM AND DOMAINS

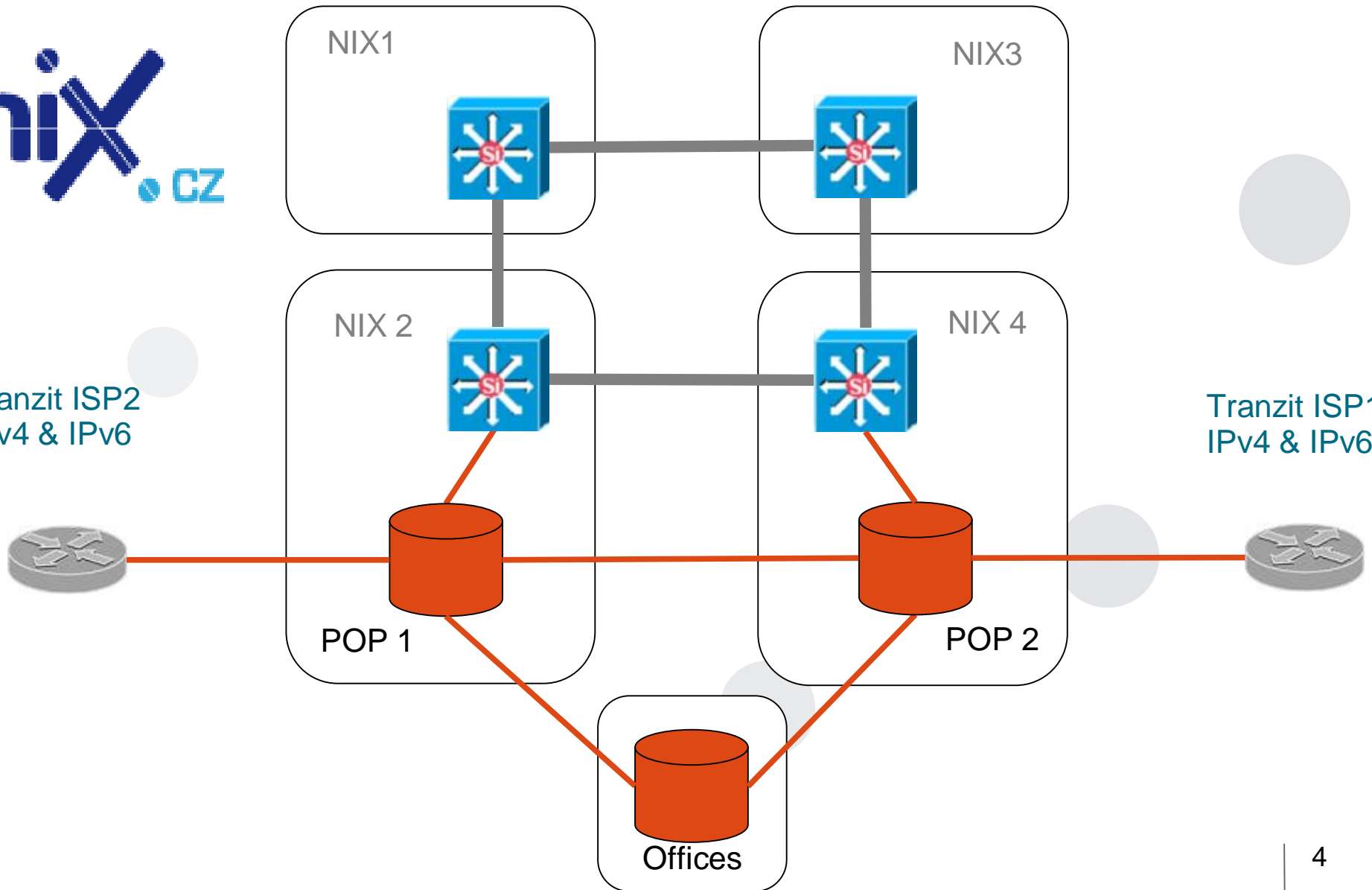


Network solution



Tranzit ISP2
IPv4 & IPv6

Tranzit ISP1
IPv4 & IPv6



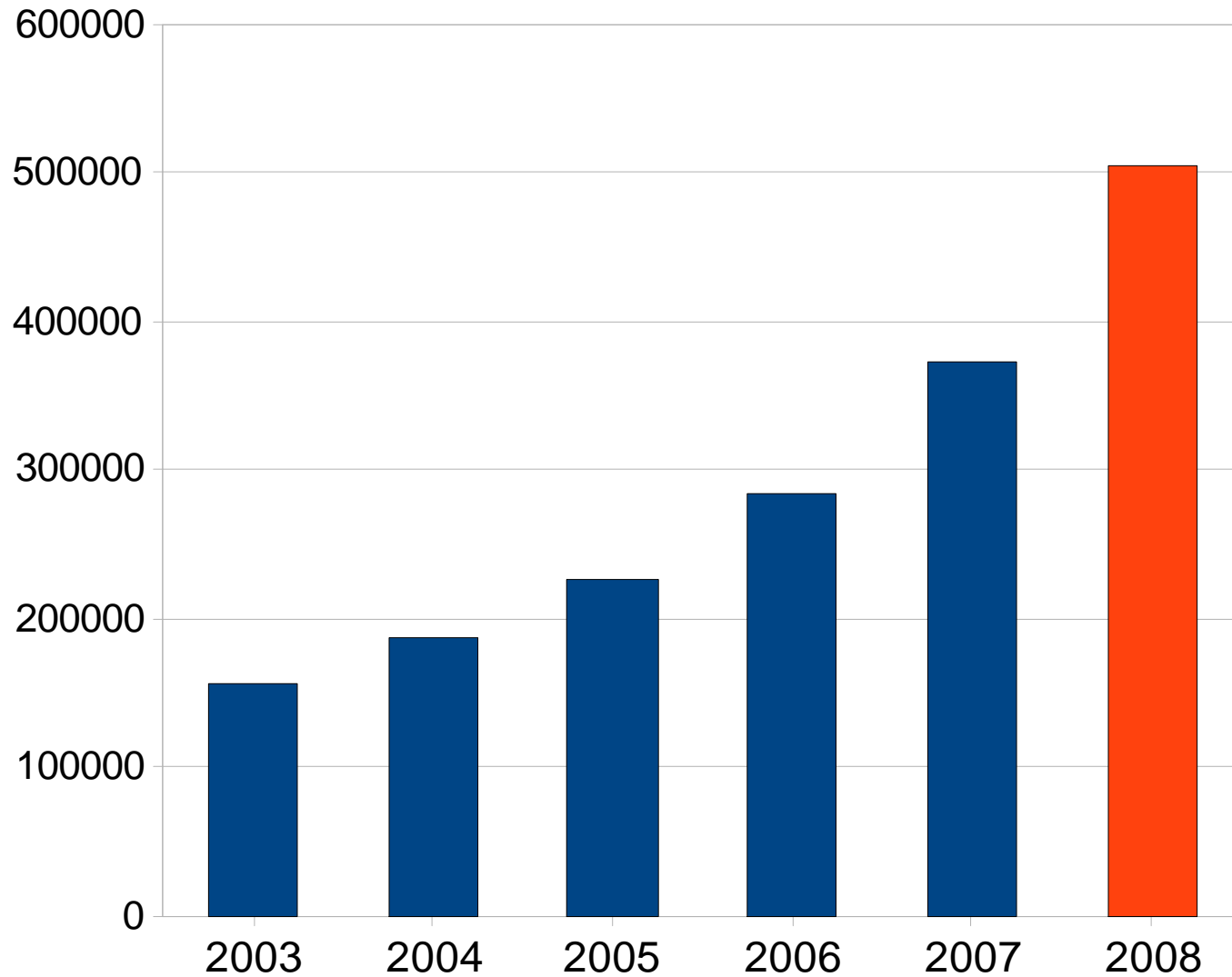
Network solution

- Registry in 2 independent telehouses (power)
- IPv4 and IPv6
- Independent international connections
- Independent connections to Prague peering point – NIX.CZ
- Different network platforms (Cisco/Juniper, Extreme)
- Different server platforms
- Nameservers – IPv4, IPv6 anycasting

Domain name increase

- Number of .CZ domains – 462 000
- Number of ENUM domains – 4 600
- Fast increase of .CZ – current year estimate – 36% ! (last year 32%)

Domain name increase



DNSSEC Conditions

- Available for .cz and 0.2.4.e164.arpa
- Key sharing
 - same keys for multiple domains
 - reduces overhead
- Free of charge
 - not service, but feature
 - within domain registration fee
- Using registrars – no model change

DNSSEC Conditions

- Operations and security
 - Based on RFCs
 - Keys RSA-SHA1 2048/1024bit
 - High security
- Zone walking problem
 - no personal data disclosed
 - approved by Personal Data Protection Office
 - NSEC3 later

DNSSEC Zone

- Every 30 minutes
- hardware security modules
- Sun Crypto Accelerator 6000 PCI
- Four Solaris servers
- KSK + ZSK
- Nameservers memory upgrade



DNSSEC timeline

- 29.2.2008 Public announcement – WP issued
- 28.4.2008 ENUM zone signed
- 30.4.2008 Final version of WP issued –
development start
- 15.8.2008 Testing for registrar
- 1.9.2008 .CZ zone signed
- 30.9.2008 Registration start**

Current work

- Mainly communication
 - Registrars
 - ISPs
 - Large companies – Banks, Newspapers, Government, Search engines
- Education
- Laboratory – dnssec compatibility
- <http://www.nic.cz/dnssec/>

Thank you!
Questions?

CZ.NIC

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<http://www.nic.cz/en/>