

# DNSSEC.CZ

CZ.NIC - <http://www.nic.cz>

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Nanog 49

**CZ.**

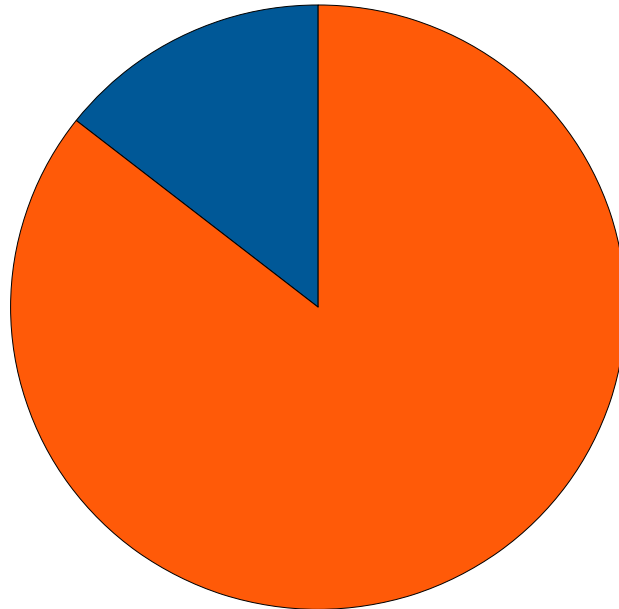
**nic**

CZ DOMAIN  
REGISTRY

# DNSSEC penetration



- About 14% domains is signed
- That means ~ **99.000** domains! (of 690k)
- Check numbers at <http://www.nic.cz>



# Common complaints

- There is no business case
- Registrars do not want it
- Registrants do not want it
- It is too expensive
- It is too complicated
- Chicken and egg



# Our philosophy

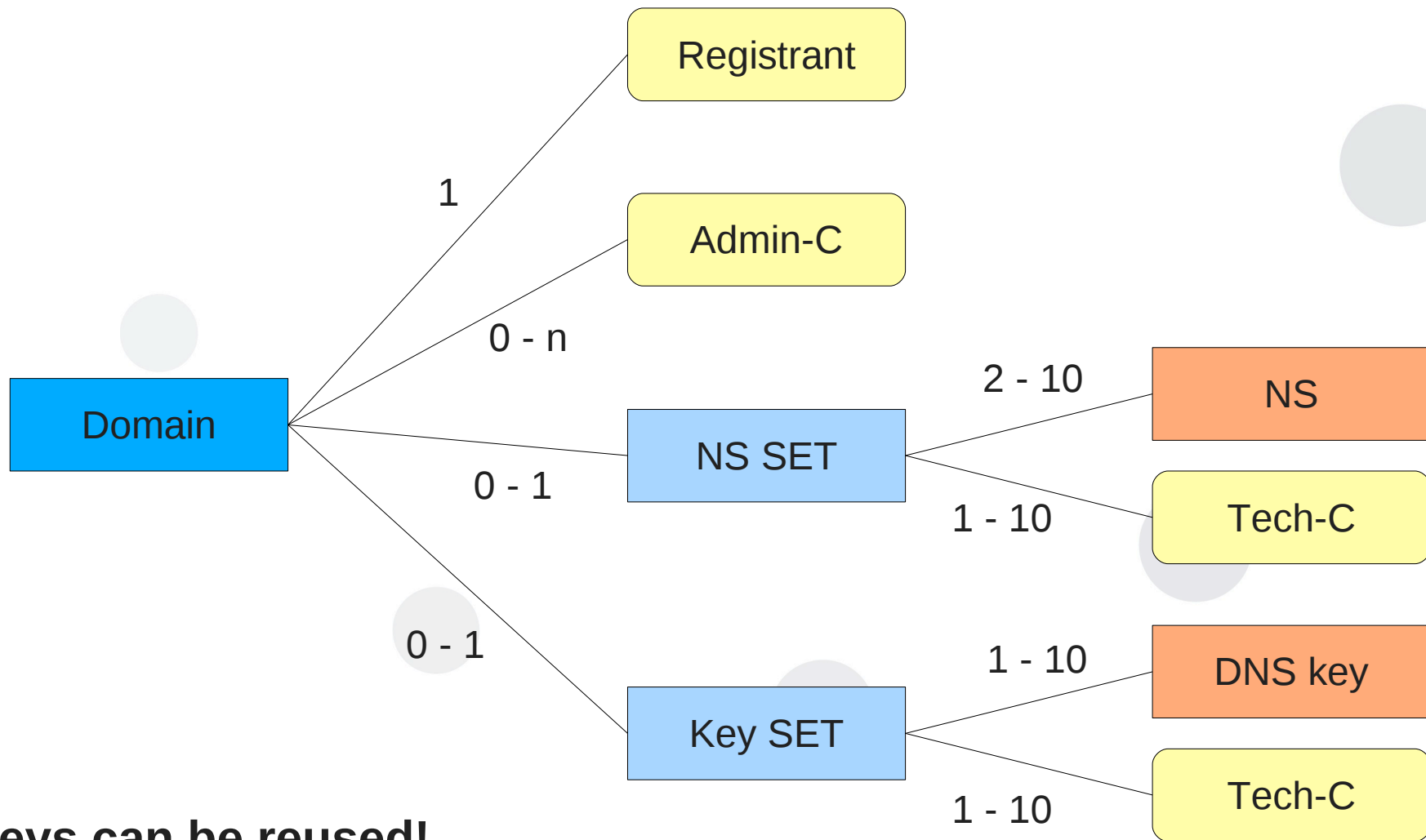
- Somebody must start it up
- Security is not a special service
- Security is a feature, natural part of domains
- Registry responsibility
- We need to find allies - ISPs, registrars, content providers, endusers



# Communication with registrars

- Seminars before, after DNSSEC launch
- Nice conditions – no fee
- DNSSEC training
- Positive discrimination in co-marketing programme
- Technical support for bulk DS record registration – no DS record, but keyset

# .cz registry data structure



Keys can be reused!

# Co-marketing

- Registrar & CZ.NIC together
- Cost split 50:50
- Maximum limit is based on registrar performance
- DNSSEC bonus
- 10% of price given back
- One DNSSEC campaign already during 2009



# End user education



- Increase the awareness ... always good
- Presenting and explaining attacks against DNS
- Communication with important players
- Marketing communication – Dobra domena
- Czech EU presidency – eu2009.cz - signed
- <http://www.dobradomena.cz/#/en/security/>
- DNSSEC tools @ beta stage
- Research Labs <http://labs.nic.cz>
- Open source





# DNSSEC HARDWARE TESTER

- Test DNSSEC compatibility – device (and network)
- Online database - EN/CZ/HU

## ZYXEL – LIST OF DEVICES

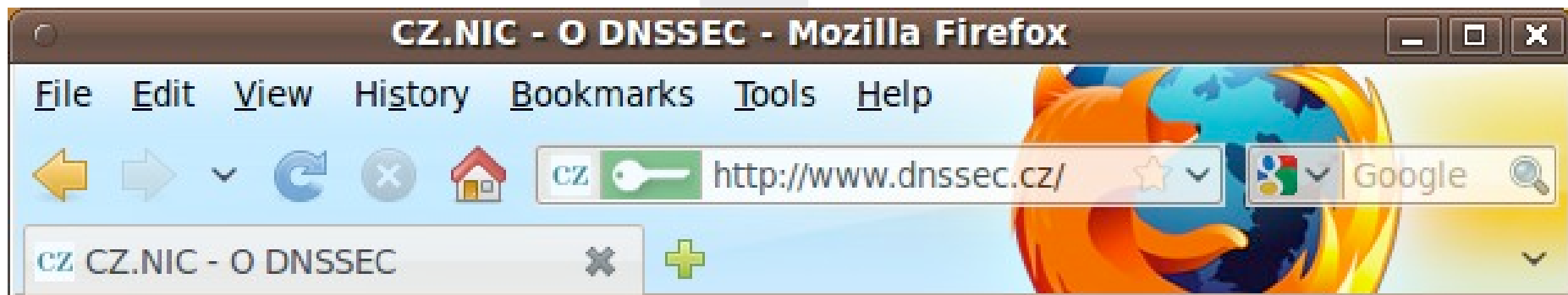
Device	Reports	Score	CZ.NIC score	DNSSEC compatibility	Last test
<a href="#">ZyXEL P-320W</a>	1	102	0	52%	06-12-2009
<a href="#">ZyXEL P-660HW</a>	4	574	0	72%	08-12-2009
<a href="#">ZyXEL P-660RU</a>	1	182	0	92%	08-12-2009
<a href="#">ZyXEL P-660R-63</a>	1	182	0	92%	02-01-2010
<a href="#">ZyXEL P-661HW</a>	0	0	0	–	–
<a href="#">ZyXEL USG 200</a>	0	0	0	–	–

- Windows / Linux / Mac OS supported
- Download at [www.dnssectester.cz](http://www.dnssectester.cz)



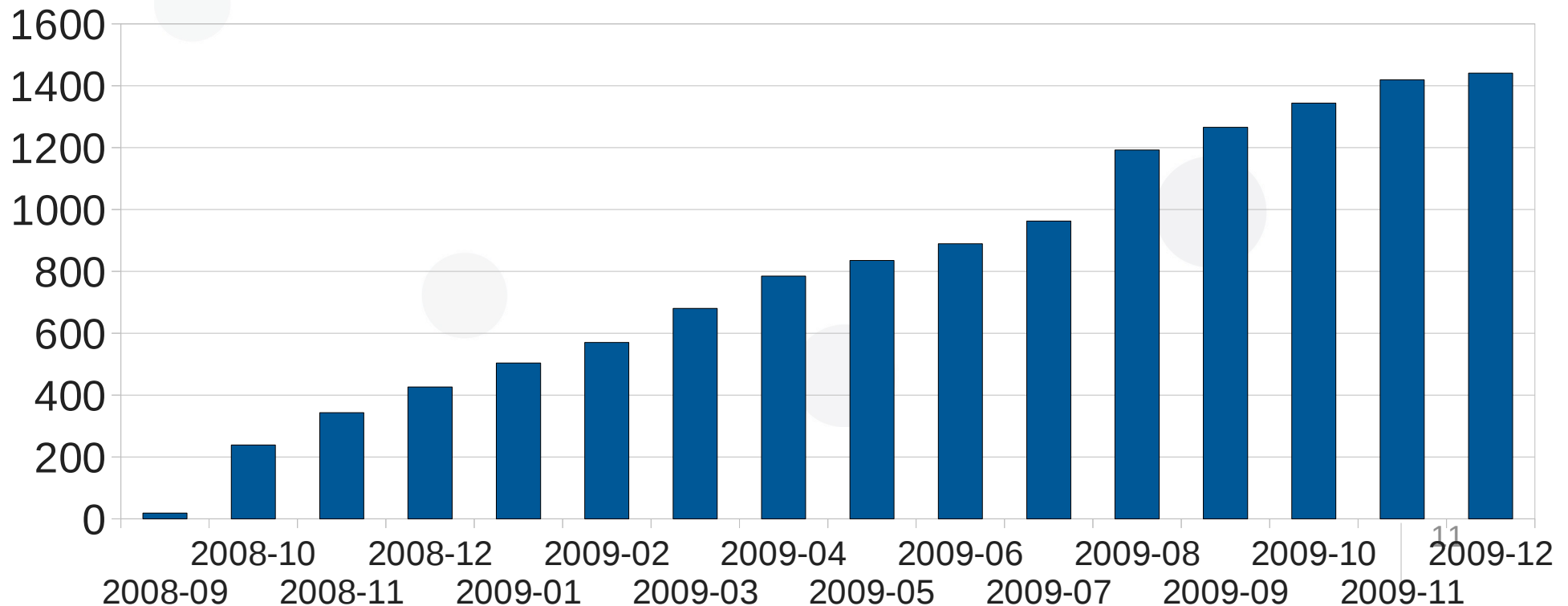
# DNSSEC Validator

- Firefox add-ons - Shows icon similar to 'https'
- Validates domain name in the address bar
- No DNSSEC, broken DNSSEC, functional DNSSEC
- Download at: <http://www.dnssec-validator.cz/>
- (Or search for DNSSEC at Mozilla Addons)

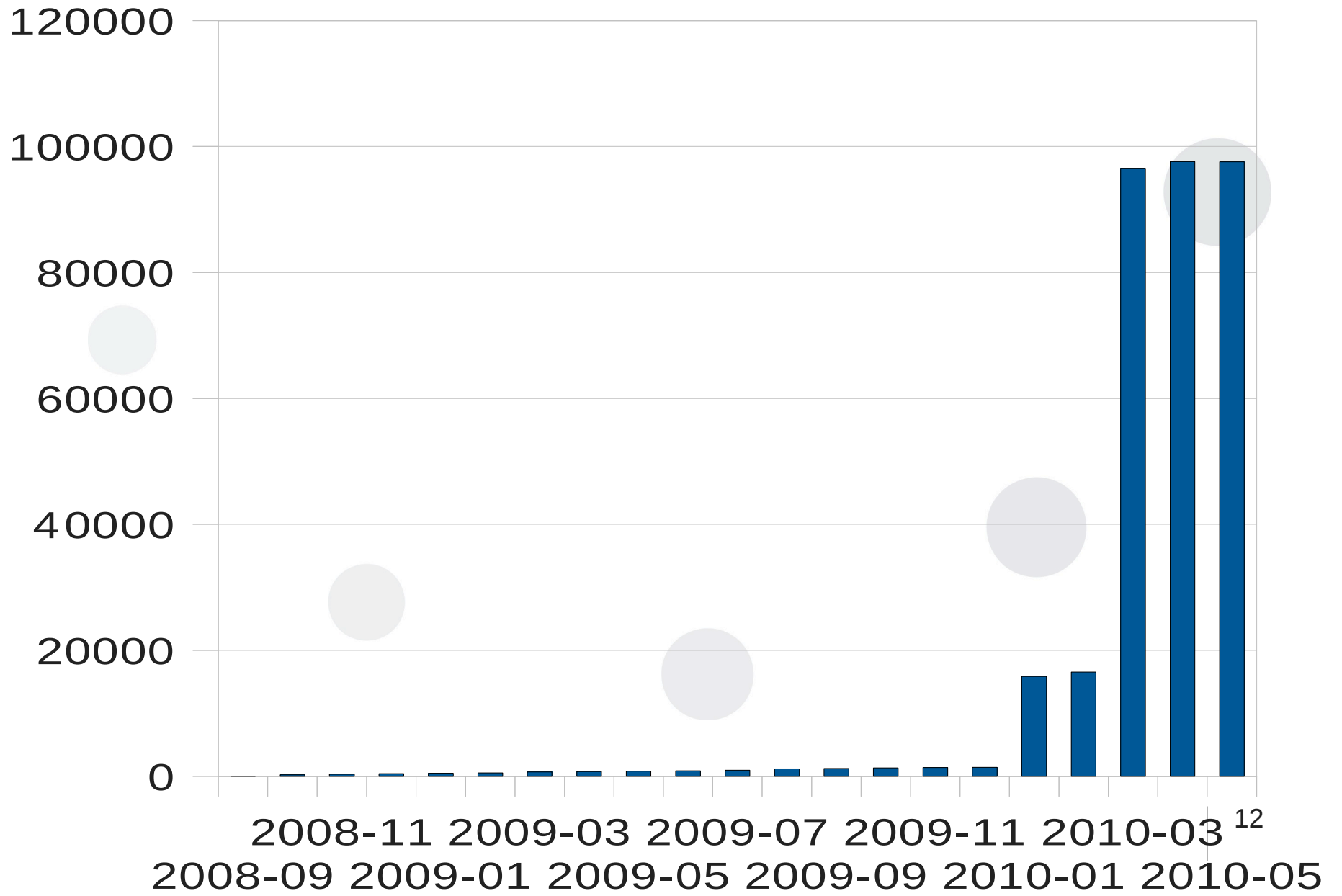


# After launch

- Some registrars started to offer DNSSEC
- But as a bundle in 'secure domain' product
- For small additional fee



# But later



# DNSSEC

web4u



- Two registrars enabled DNSSEC by default
- For domains on their DNS servers
- No additional fee
- Marketing advantage
- Well communicated – very good media coverage
- Competitive advantage

# Conclusion

- DNSSEC can be deployed at larger scale
- It is not so complicated
- Registry can start it up
- As pioneers we (all involved parties) face some small problems in implementation
- Czech Republic - the most secured DNS in the world :-)
- More news to come - NSEC3
  - 0.2.4.e164.arpa - done
  - CZ – August 3 2010



# Thank you

# Questions?

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