

DNSSEC.CZ

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

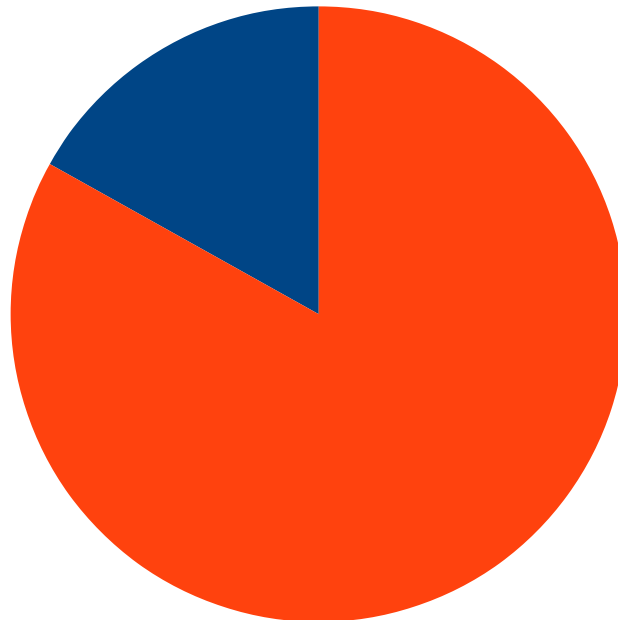
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Oct 26 2011, Dakar, ICANN DNSSEC WS

DNSSEC penetration



- About 17% domains is signed
- That means ~ **145.000** domains! (of 856.000)
- 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, end-users



Communication with registrars

- Seminars before, after DNSSEC launch
- Nice conditions – no fee
- DNSSEC training
- Technical and economical incentives for registrars

Co-marketing

- Registrar & CZ.NIC together
- Cost split 50:50
- Maximum limit is based on registrar performance
- 7% of price given back
- DNSSEC bonus – another 10%
- 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
- Research Labs <http://labs.nic.cz>
- Open source

DNSSEC Education

- Good Domain campaign

The screenshot shows the website **WWW.DOBRA DOMENA.CZ** with a yellow and black striped border. At the top left is a circular logo with 'LNX'. The main content is a video of a man (Ales) pointing at the camera while talking on a phone. Below the video is a black bar with the text "just beside that we have something about security." and a yellow button labeled "BORING?".

Interactive elements include:

- ABOUT ALEŠ**: A button next to a cookie icon.
- ON FACEBOOK**: A button next to a Facebook icon.
- SCREENSAVERS**: A button next to a terminal window icon.
- DOWNLOADS**: A button next to a poster that says "ALEŠ WANTS YOU TO FIGHT FOR A BETTER WEB".
- Today**: A calendar icon showing "FRIDAY October 15".
- Navigation buttons**: "WHY HAVE A DOMAIN", "SECURITY", "HOW TO REGISTER", "GET THE INFO BY email", and "PRINT THE INFO OUT".
- EXIT Full screen ON/OFF**: A button at the bottom left.
- CZ verze**: A button with a Czech flag icon at the bottom center.
- Sound ON/OFF**: A button with a speaker icon at the bottom center.
- @ CONTACT ALEŠ**: A button at the bottom right.
- © cs.mic All rights reserved.**: A vertical copyright notice on the right side.

- Secure domains campaign



DNSSEC HARDWARE TESTER

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

ZYXEL – LIST OF DEVICES

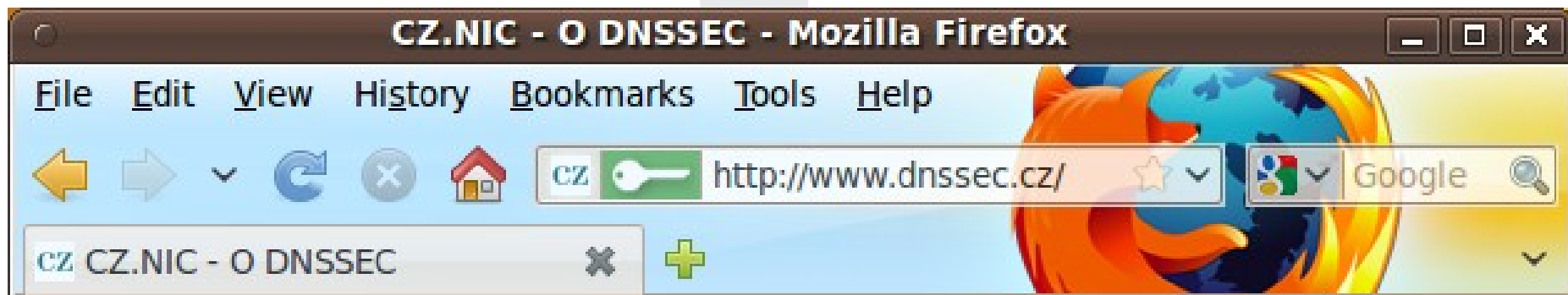
Device	Reports	Score	CZ.NIC score	DNSSEC compatibility	Last test
ZyXEL P-320W	1	102	0	☁ 52%	06-12-2009
ZyXEL P-660HW	4	574	0	☀☁ 72%	08-12-2009
ZyXEL P-660RU	1	182	0	☀ 92%	08-12-2009
ZyXEL P-660R-63	1	182	0	☀ 92%	02-01-2010
ZyXEL P-661HW	0	0	0	–	–
ZyXEL USG 200	0	0	0	–	–

- Windows / Linux / Mac OS supported
- Download at www.dnssectester.cz



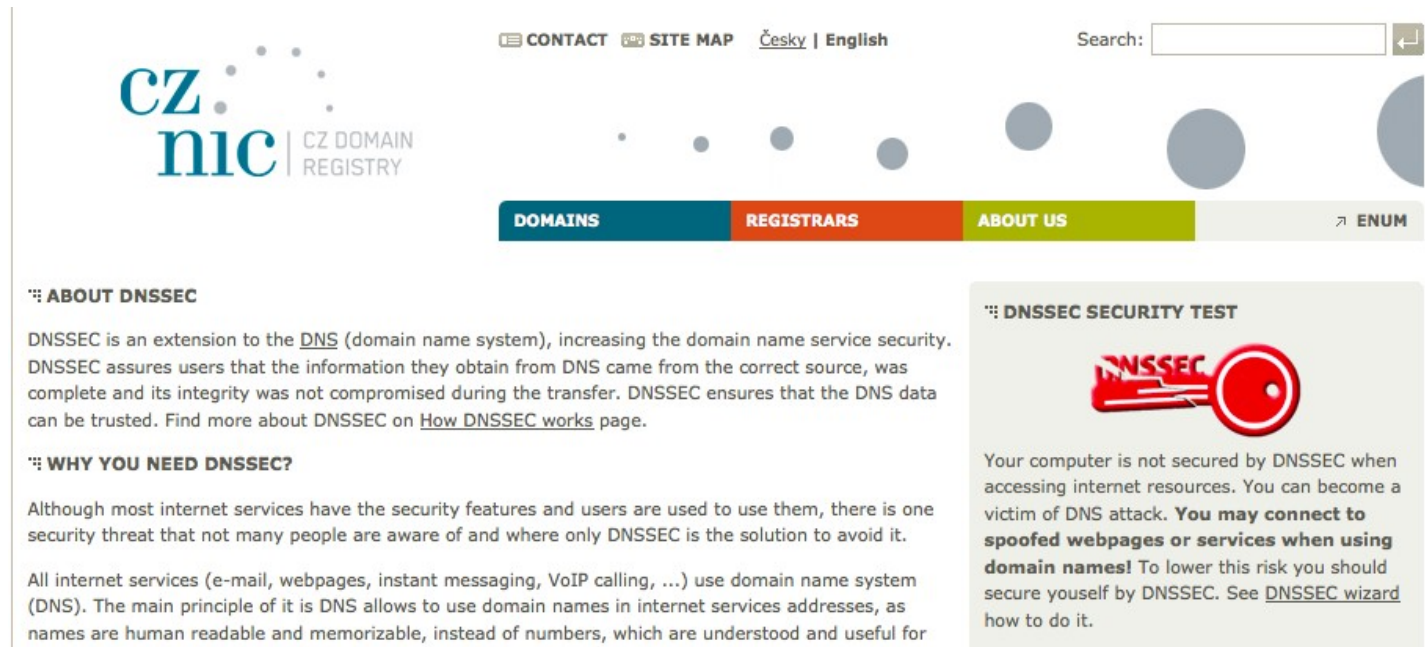
DNSSEC Validator

- 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 Add-ons)
- Working on Chrome, ...



Open validating resolvers

- Do you have a validating resolver?
- Go to www.dnssec.cz and check:

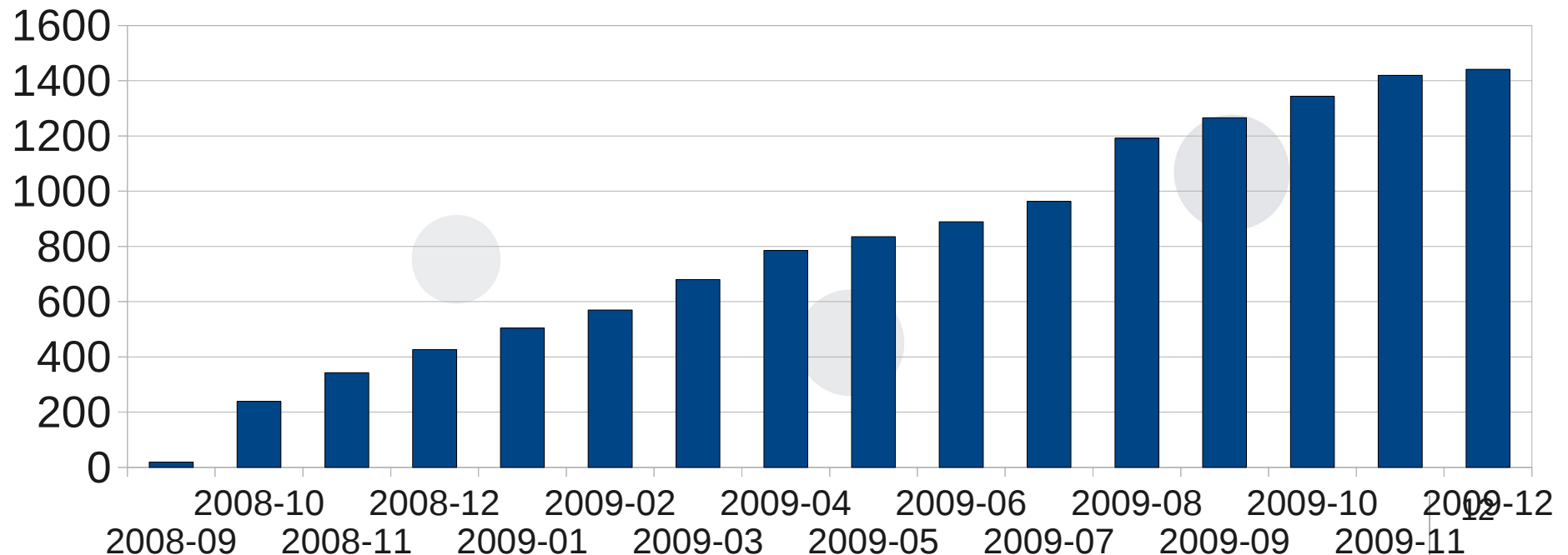


The screenshot shows the website www.dnssec.cz. The header includes the logo for **CZ.nic** (CZ DOMAIN REGISTRY), navigation links for CONTACT, SITE MAP, and language options (Česky | English), and a search bar. A main navigation bar features buttons for DOMAINS, REGISTRARS, ABOUT US, and ENUM. The content area is divided into two columns. The left column has a section titled "ABOUT DNSSEC" which explains that DNSSEC is an extension to the DNS (domain name system) that increases security by ensuring information comes from the correct source and is not compromised. Below this is a section titled "WHY YOU NEED DNSSEC?" which states that while many internet services have security features, users often aren't aware of the security threat that DNSSEC addresses. The right column features a section titled "DNSSEC SECURITY TEST" with a red key icon and a warning: "Your computer is not secured by DNSSEC when accessing internet resources. You can become a victim of DNS attack. **You may connect to spoofed webpages or services when using domain names!** To lower this risk you should secure yourself by DNSSEC. See [DNSSEC wizard](#) how to do it."

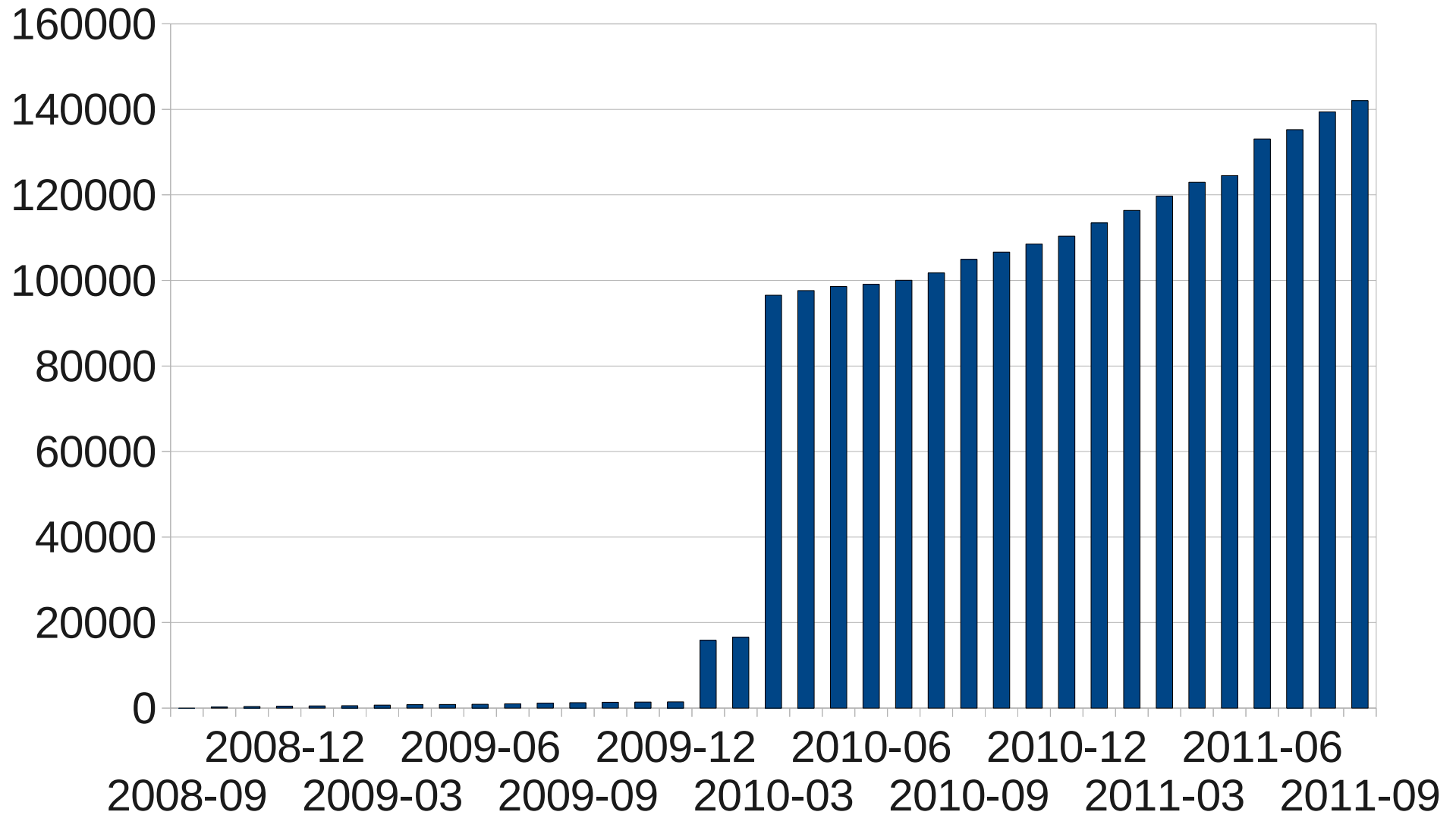
- Public validating DNSSEC resolvers
- <http://labs.nic.cz/odvr>

After launch

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



But later



DNSSEC

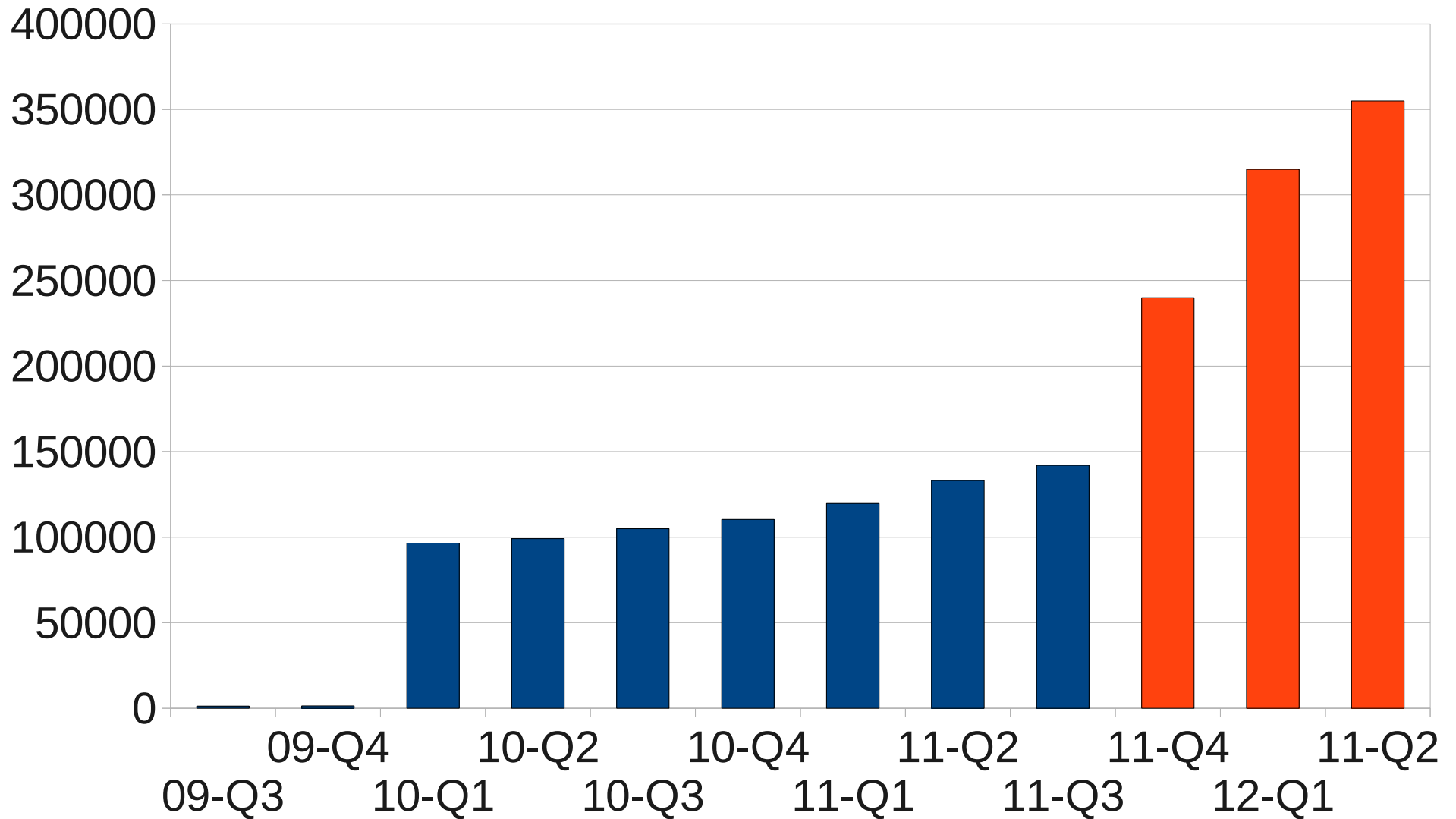


web4u



- Three registrars enabled DNSSEC by default
 - domains on their DNS servers
- No additional fee
- Marketing advantage
- Well communicated – very good media coverage
- Synergy with other TLDs (like .eu)
- **11 registrars have more than 100 signed domains each – more than 90% of mkt share**

Forecast (in Qs)



Conclusion

- DNSSEC can be deployed at larger scale
- It is not so complicated
- Registry can/should start it up
- Currently we are working on validation side and important domains
- Czech Republic - the most secured DNS in the world :-) - and we go on...

Thank you

Questions?

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