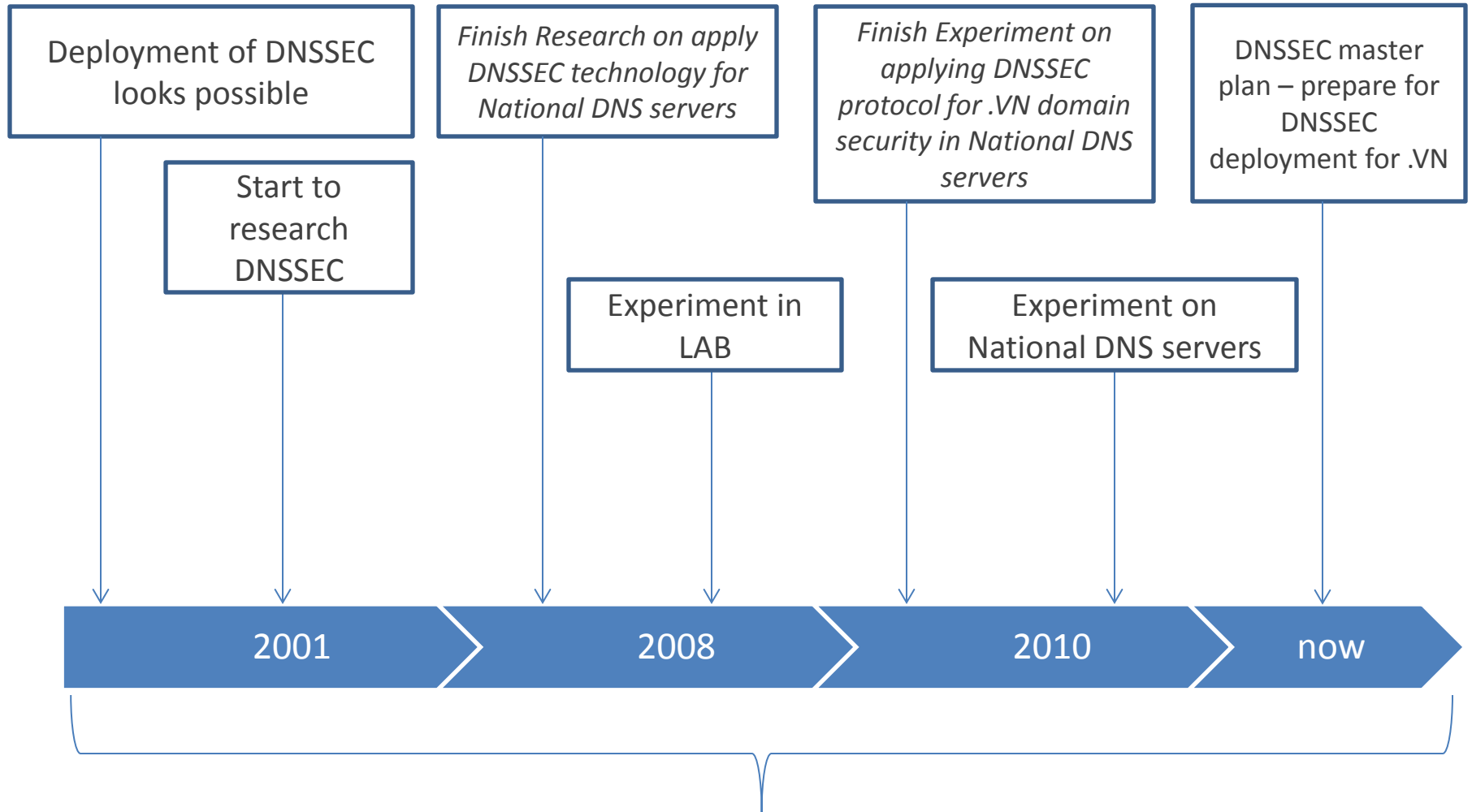# DNSSEC Research and Experimentation Status in Vietnam

DNSSEC Workshop Program
ICANN 49 Meeting in Singapore
23-27 March 2014
Tran Canh Toan, VNNIC
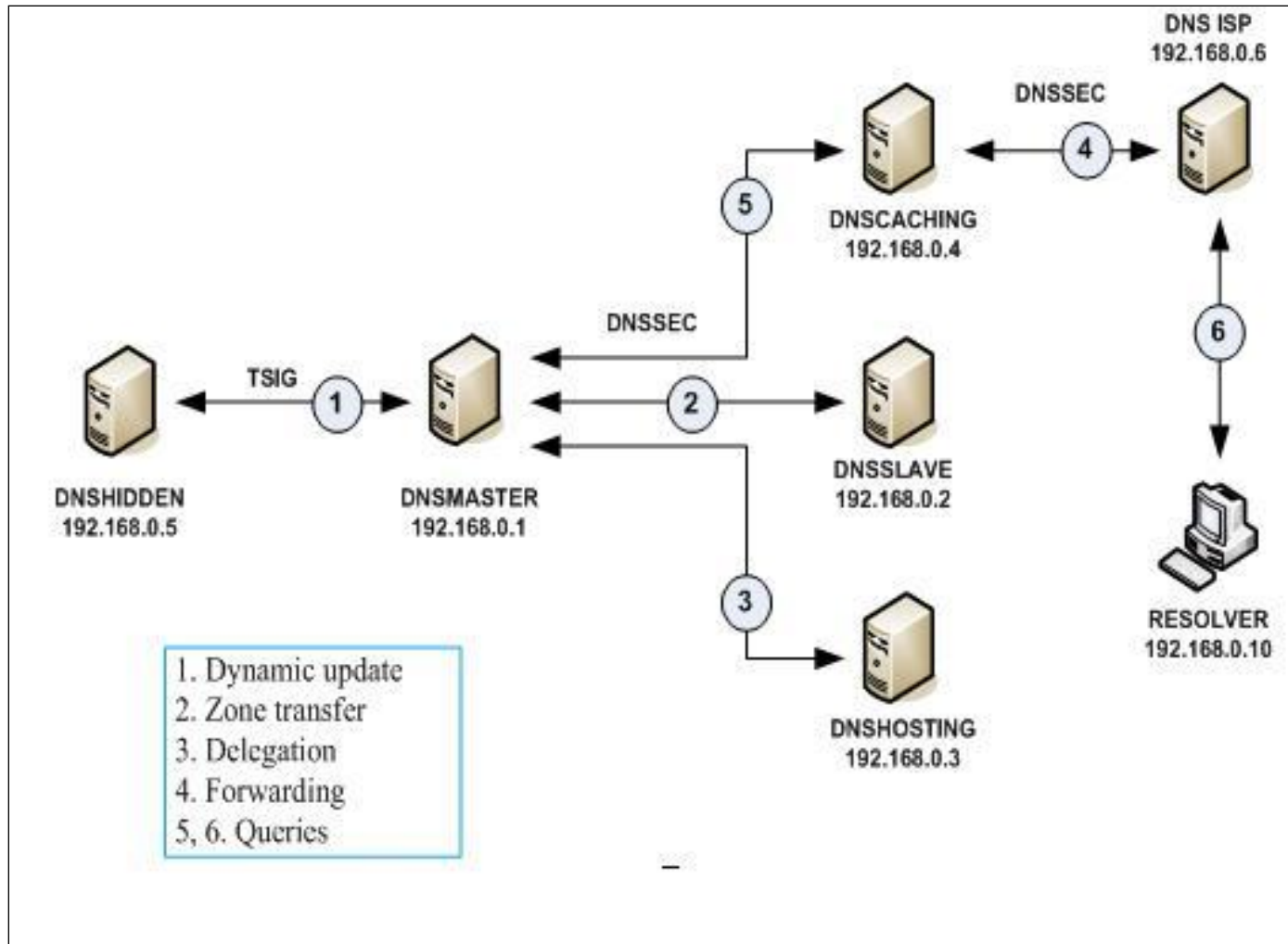Email: toantc@vnnic.vn

Presentation content

1. Update DNSSEC status in Vietnam

2. DNSSEC Plan

3. Some interested issues

DNSSEC Status

Deployment of DNSSEC looks possible

Start to research DNSSEC

Finish Research on apply DNSSEC technology for National DNS servers

Experiment in LAB

Finish Experiment on applying DNSSEC protocol for .VN domain security in National DNS servers

Experiment on National DNS servers

DNSSEC master plan – prepare for DNSSEC deployment for .VN

| 2001 | 2008 | 2010 | now |

Join actively the conferences (ICANN, APTLD, APRICOT, DNS-OARC)

3

Experiment in LAB

Experiment on National DNS servers
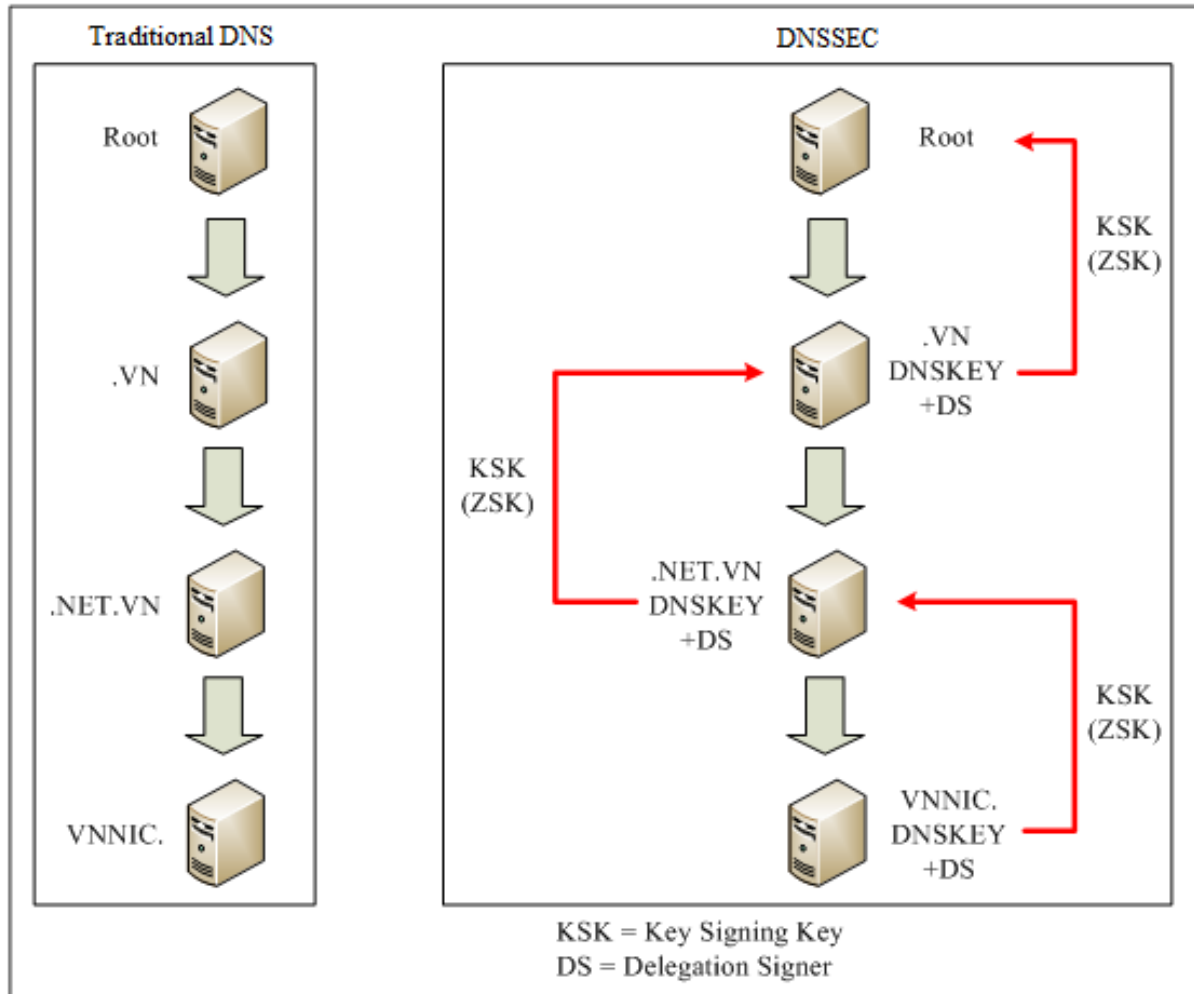
Experimentation Result

- Ensure authorized query between client and DNS servers.
- Zone file size increase approx 4 times.
- Response time and synchronization time increase unconsiderably.
- Impact on increased usage of CPU and memory not significant.

Zone	Zone file size		Signed time (second)	Number of domains	Number of signed domains
	Before signed (Byte)	After signed (Byte)			
.vn	3520683	14786808	171.135	69530	69530
.com.vn	3495013	14679054	145.342	59483	59483
.net.vn	120257	505019	5.094	2069	2069
.org.vn	142423	598076	6.668	2684	2684
.edu.vn	263367	1106101	10.464	4232	4232
.ac.vn	5765	22413	0.269	108	108

DNSSEC Plan

- 3 main stages, from 2014 - 2016
- 1st stage: preparation (2014)
    - Infrastructure conditions, human resources
    - Promote co-operate activities, training
    - Policy, procedure, process
- 2nd stage: official deployment (2014-2015)
    - Key generation & zone signing for .VN
    - .VN zone is signed & its DS has been published
    - Continue promotion activities, training
- 3rd stage: extension deployment (2015-2016)
    - ISP, Registrar, DNS Owner in Vietnam
- **Vietnam is now in 1st stage!**

Interested issues

- Policy and measures to promote DNSSEC, esp. e-gov, e-commerce.

- Co-operate and interest of Registrar, ISP, domain owner.

- Key management: secure private key, key rollover, key gen ceremony,...

- Infrastructure: Main site, DR site, safe area.

- EPP-DNSSEC integration.

- BCP of ICANN and other ccTLD, TLD registry.

Thank you!

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