

# DNSSEC Update on ".kr" & Supporting activity for domestic stakeholder

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Joonhyung Lim, Associate Research Fellow jhlim@kisa.or.kr

Korea Internet & Security Agency(KISA)



## Current status

2011, June: go.kr (signed) 2011, Sep. : .kr 2011, Oct. : 12 Zones 2011, Nov. : 16 Zones 2012, Mar. : co.kr zone 2<sup>nd</sup> half of 2011 2012, May: ".한국" zone DNSSEC Validation Plug-in(Pilot) .kr Registry **Recursive DNS** .kr Registrar .kr Registrant User (DNS Operator) ISP, Company, 34 **KISA** Government, registrar I **KISA** 2<sup>nd</sup> half of 2012 DNSSEC -supported 2<sup>nd</sup> half of 2012 Open cache DNS service **DNSSEC** Registrations will begin will begin

# Everything was OK, but HSM...

- While we've been "testing" some HSM product with BIND:
  - Unexpected error was occurred during signing a zone without NSEC3 opt-out.
  - During executing "sbin/dnssec-signzone" linked to HSM module with certain number of CPU as a parameter "n", error occurred.
  - It can't load a HSM module on latest version of BIND.
- If there are multiple DNSSEC master servers, HSM configuration options vary.
  - PCI type: Fast, but key management is isolated by its own server.
  - Server type: little bit slow, but each duplicated DNSSEC master server can share key from single HSM resource.

### Deploying DNSSEC-supported open cache DNS

- To promote wide-range deployment of DNSSEC, we're preparing a DNSSECsupported open cache DNS server.
  - It will be served step by step from 2nd half of 2012 by measuring impact to end-user and ISPs.
  - For measuring and analyzing a significant impact of DNSSEC, we are now developing CNAS(Cache Name server Analysis System)
  - We expect that CNAS is useful for:
    - detecting a abnormality about DNS and DNSSEC.
    - detecting a any Configuration-error from DNSSEC adopted domain name under .kr.
    - By visualize a DNSSEC, it makes people understand that which level of safety can be ensured when they enjoy internet.



<DNSSEC Query status>



#### Future Plan

- To adopt DNSSEC easily by each stakeholder, it is necessary to do lowering a barrier at initial stage.
  - Finding out Infrastructure to share.
  - Listening difficulties from DNS operators at regular domestic meeting.
  - Running 3-days DNSSEC training course from this year.
    - KISA have been providing a half-day DNSSEC training course to domestic member since 2010
  - Recognizing a new stakeholder that we had missed before.
- To accelerate adopting a DNSSEC, we will try to find out "best practice" in public and finance sector.
- We will continuing to make effort with our registrar for giving a value to end-user, as a new DNSSEC service.