DNSSEC Update on “.kr” & Supporting activity for domestic stakeholder

2012.3.14
DNSSEC workshop, ICANN 43

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Current status

2011, June: go.kr (signed)
2011, Sep.: .kr
2011, Oct.: 12 Zones
2011, Nov.: 16 Zones
2012, Mar.: co.kr zone
2012, May: “한국” zone

2nd half of 2011
DNSSEC Validation Plug-in (Pilot)

2nd half of 2012
DNSSEC Registrations will begin

2nd half of 2012
DNSSEC – supported Open cache DNS service 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 DNSSEC-supported 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.
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.