.my

DOMAIN REGISTRY

Internet Identity For All

.my DNSSEC Deployment Plans & Experience

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DNSSEC Workshop

Agenda

o Overview of DNSSEC Deployment in Malaysia

o Post Deployment Issues

o Some findings from the Public Trial

o Efforts in Promoting DNSSEC

o Challenges Ahead

Overview of DNSSEC Deployment in Malaysia

.my DNSSEC Implementation Milestones

Public Trial
Duration: 29th Dec - 16th May 2010
Zones: All zones
Trust Anchor: IANA DNSSEC Root Test Bed

Production
Signed since 9th Oct 2010
(DS Added in root on 11th Dec 2010)
Zones: All zones
Trust Anchor: Root

Closed Test Bed
Duration: 31st Mar - 31st Oct 2009
Zones: .my & .net.my
Trust Anchor: IANA DNSSEC Root Test Bed

.myDNSSEC Deployment Details

Key Algorithm: RSASHA256 with NSEC3 Opt-out

Key Signing Key (KSK)
KSK lifetime :   1 year (i.e. rollover every 12 months)
KSK bits   :   2048

Zone Signing Key (ZSK)
ZSK lifetime :   12 weeks (i.e. rollover every 3 months)
ZSK bits   :   1024

Current Status

Number of Domain Names with DNSSEC

Number of Domain Names with DNSSEC:
** As of 24 May 2011

Month*		.my	.com.my	.net.my	.org.my	.gov.my	.edu.my	.mil.my	.name.my	Total
2011	May **	6	0	0	1	0	1	0	0	8
	Apr	5	0	0	1	0	1	0	0	7
	Mar	5	0	0	1	0	1	0	0	7

Please see: http://domainregistry.my/en/statistics.php

Post Deployment Issues

Post Deployment Issues

2 Issues:

1. Unable to get a NSEC3 response to prove that a record is without DS Record (i.e. a non-signed delegation, since NSEC3 with opt-out only sign records with DS)

   - Temporary workaround: Whenever a zone is without any DS from child, exclude the DS from .my zone.
   - E.g.: If .mil.my is without any child delegation signed, .mil.my DS will not be included in the .my zone

2. Timing of rollover was wrongly set (overlooked, and contain default configuration)

   - ZSK was changed before there was enough time to allow to propagate the new key (< 2x maximum TTL).
   - Fix by rectifying the configuration

Some Relevant Findings from the Public Trial

Findings from the Public Trial

1. General public acceptance is low because:
   a. Lack of awareness and education on DNS technology
   b. Not able to control own zone file (usually handled by Hosting Providers)
   c. Reluctant as it is still perceived as not urgent

2. ISPs need more persuasion to support DNSSEC

3. The Central Bank is supportive generally. But up to banks to adopt the technology.

4. Does not seem to be an issue for those who are able to handle own zone file.

Efforts in Promoting DNSSEC

Efforts in Promoting DNSSEC

2006 - 2008	2009	2010	2011
• .myTraining	• .myTraining • Awareness Road Show in 5 states	• Meeting with Resellers • Meeting with ISPs • DNSSEC Workshop (APTLD – 3rd March 2010) • Meeting with BNM / Banks	• DNSSEC Security Talk (MCMC) – 3rd March • ISOC Awareness Series – DNSSEC – 12th May • DNS / DNSSEC Training – 29th June – 1st July

Challenges Ahead

1. Engaging ISPs (recursive DNS) to enable DNSSEC to do the validation

2. Encourage a greater adoption of DNSSEC by Authoritative DNS Administrators

3. Constant monitoring for any new issue with regards to DNSSEC deployment

4. Further improvements to the .my DNSSEC Environment (signing, key management, etc). There is a lot of room for improvements.

THANK YOU!

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