.th DNSSEC Deployment

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Background

• .th has been registered in 1988
• One registry, one registrar and 36 resellers
• Restricted registration model
• Number of domains (as of 16.06.2009)
  − 7 sub domains under .th
  − 9,500 IDN.th domains
  − 34,500 domains in 3rd level
Preparation

• DNSSEC Workshop in Dec 2006
• Consolidate all necessary information
• Select the methodology
• Prepare new machines
• Test run

• DNSSEC Workshop in Feb 2009
  - Policy session
  - Fix the steps and method
Preparation (cont)

- Increase link bandwidth
- Inform .th name server operators to turn on DNSSEC
- Change of name servers
  - Replace the UUNET name server with two ISC name servers
- All name servers are running TSIG
- Submit keys to IANA, ISC (DLV)
Operations

- Bind 9.6.0-P1
- Keys RSA-SHA1 2048/1024 bits
- Sign Zone, e.g., .th, .in.th
- Key rollover period 1 year/2 months
Infrastructure

Key Admin Console

Key Store Admin Tool

Key Store

Zone Signer

Private Key

Signed zone

Zone Builder

Signed zone

Zone Export

Zone files (legacy system)

Zone Import

Registry DB

DS RRs Builder

Signed zone

Registration Staff

Registrar DB

Process Registration

DNSKEY
Timeline

25.2.2009 Public announcement
27.3.2009 Changed Name Servers
30.3.2009 .TH zone signed
06.4.2009 Trust Anchors has been listed on ITAR
5.2009 Communicate with ISPs and Resellers
1st reseller signed its domains
6.2009 Reseller signed customers' domains
Status

• Number of signed domains
• Supported by the largest reseller
• Plan to have a campaign with 1st ISP
• Thai University Network will organize a workshop in August
Future works

• Registration system to support DNSSEC key
• Automate ZSK rollover
• Contact and educate
  − ISPs
  − resellers
  − Banks and large companies
  − Government