

# DNSSEC Deployment Activity in Japan

Taiji Kimura Yoshiki Ishida Yoshiro Yoneya Tuyoshi Toyono



### DNSSEC Status(TLD)



http://www.ohmo.to/dnssec/maps/



#### DNSSEC Status(cont.)



### **DNSSEC** Japan



- The Charter of DNSSEC Japan (DNSSEC.jp)
  - Name of the Organization The official name of this organization is "DNSSEC Japan" and abbreviated as "DNSSEC.jp".
  - The Charter

"DNSSEC Japan (DNSSEC.jp)" is established as a forum for domain name registries, registrars, registrants and relevant parties such as DNS and network operators with the aim of introducing and deploying DNSSEC that enhances security of the DNS. DNSSEC.jp makes it a principle to carry out activities based on the

- mutual cooperation by participants.
- Members
  - 37 organizations
- Terms
  - 2009/11/24 2012/3/31



#### Organization





### General Meeting/Plenary Meeting

- General Meeting
  - 3 times
- Plenary Meeting
  - 17 times
    - Bi-monthly

### **Operation Workshop**



- Sub-WG on understanding Protocols
  - Lectures on 13 RFC's and Internet–Draft's about DNSSEC
  - All presentation materials are available on <a href="http://dnssec.jp/?page\_id=124">http://dnssec.jp/?page\_id=124</a> (Japanese)
- Sub-WG on operational technology
  - Hands-on:
    - Setting up DNSSEC enabled servers
    - Management of DNSSEC Key using tools

# Technical Verification WG (Tech WG)



- Investigation, examination, and experiments on technical issues that organizations which intend to introduce and operate DNSSEC should know
- All products(10 documents) are available on <u>http://dnssec.jp/?page\_id=307</u> (Japanese)



# **Documents from Tech WG**

Title	Date
The structure and the current status of DNSSEC The structure and the current status of DNSSEC were summarized briefly. (pdf form, 340kB, 12p)	2010/11/24
For the introduction of DNSSEC What means the introduction of DNSSEC? The issues which should be examined are summarized for any categories of providers. (pdf form, 399kB, 19p)	2010/11/24
About setting the trust anchor for the resolver using DNSSEC (2 <sup>nd</sup> edtion) Best current practice to get and check the data of the trust anchor for the DNS cache server (or resolver) with DNSSEC is explained. (pdf form, 160kB, 5p)	2011/2/7
Reports on the key registration interface of registries (pdf form, 358kB, 4p)	2010/11/24
Registrar transfer guideline The guideline reports the results of examination of both the registrar transfer and the DNS provider transfer after the introduction of DNSSEC. This mentions the check points on the transfer, introduction of the transfer patterns, and DNSSEC Japan's recommendation with the reason. (pdf form, 433kB, 25p)	2010/11/24
Introduction of DNSSSEC for Cache DNS server guideline (pdf form, 180kB, 8p)	2011/3/9

# Documents from Tech WG (cont'd)



Title	Date
<u>Checklist for Function of a Load Balancer for DNS server with DNSSEC</u> (pdf form, 193kB, 7p)	2011/3/9
Reports on DNSSEC tools (pdf form, 172kB, 10p)	2011/4/1
Key management for DNSSEC The fundamental life cycle of the key management for DNSSEC is explained, and the guideline is offered.(pdf form, 287kB, 9p)	2011/4/18
Checklist for key management of DNS server with DNSSEC (pdf form, 172kB, 6p)	2011/4/18
<u>Report on the experiments of gTLD registrar transfer with DNSSEC</u> The report of the registrar transfer experiment actually conducted in the form where the <u>registrar transfer guideline</u> was met was adjusted.(pdf form, 163kB, 10p)	2012/7/12

### Logo WG



 Creating and Publishing DNSSEC Ready Logo and DNSSEC Ready Checklists



dnsops.jpはDNSSECに対応しています。 [対応カテゴリ]:ドメイン名登録、権威DNSサーバ [対応状況]:記入済チェックリスト

• Checklists are divide into four categories



## Operations Technology WG (Operation WG)



- Sharing Practical Know-how for DNSSEC operations and lowering barriers for introducing it
- Activities
  - Research on failure incidents
  - Studies on HSM and DPS
  - Inquiry and hearing on barriers for introducing DNSSEC



Title	Laid-open disclosure date
Alert of introduction of DNSSEC to the zone using Red Hat software Enterprise Linux and its compatible OS before the release 5 as a secondary server (pdf form, 152kB, 5p)	2011/10/5
Report on DNSSEC zone verification tools Explanation of the necessity for testing in advance a signed zone is correctly verifiable before publishing it, and tools for performing it (pdf forml, 198kB, 6p)	2012/4/16
<u>Consideration about operations of DNSSEC by using HSM</u> Discussion about using HSM for authoritative DNS server with DNSSEC. (pdf form 1.2MB, 14p)	2012/4/17
Examination of creation and publication of the DPS with introduction of DNSSEC for ISPs. (pdf form 150kB, 4p)	2012/4/24
<u>Summary on failure case studies</u> (pdf 720kB, 4p)	2012/7/12
<u>General Comments from failure case studies on introduction of DNSSEC</u> Generalization of the knowledge acquired from the failure case studies (pdf form 243kB, 5p)	2012/7/12

#### **Publication WG**



- Publications Activities on DNSSEC and DNSSEC Japan to the communities
- Web
  - http://dnssec.jp/
- Twitter
  - Accunt: @dnssec\_jp
  - Hash tag: #dnssec\_jp

#### **Events**



- Workshop
  - DNSSEC Service Model Workshop(closed)
  - Key Management Workshop(closed)
- Forums
  - 2010/7/21 DNSSEC 2010 Summer Forum
  - 2011/4/20 DNSSEC 2011 Spring Forum
  - 2012/4/25 DNSSEC 2012 Spring Forum(Final)