

# DNSSEC in .JP

October 28, 2009

Hiro Hotta

JPRS (.jp)

# Statement issued by JPRS

<http://jprs.co.jp/en/topics/2009/090709.html>

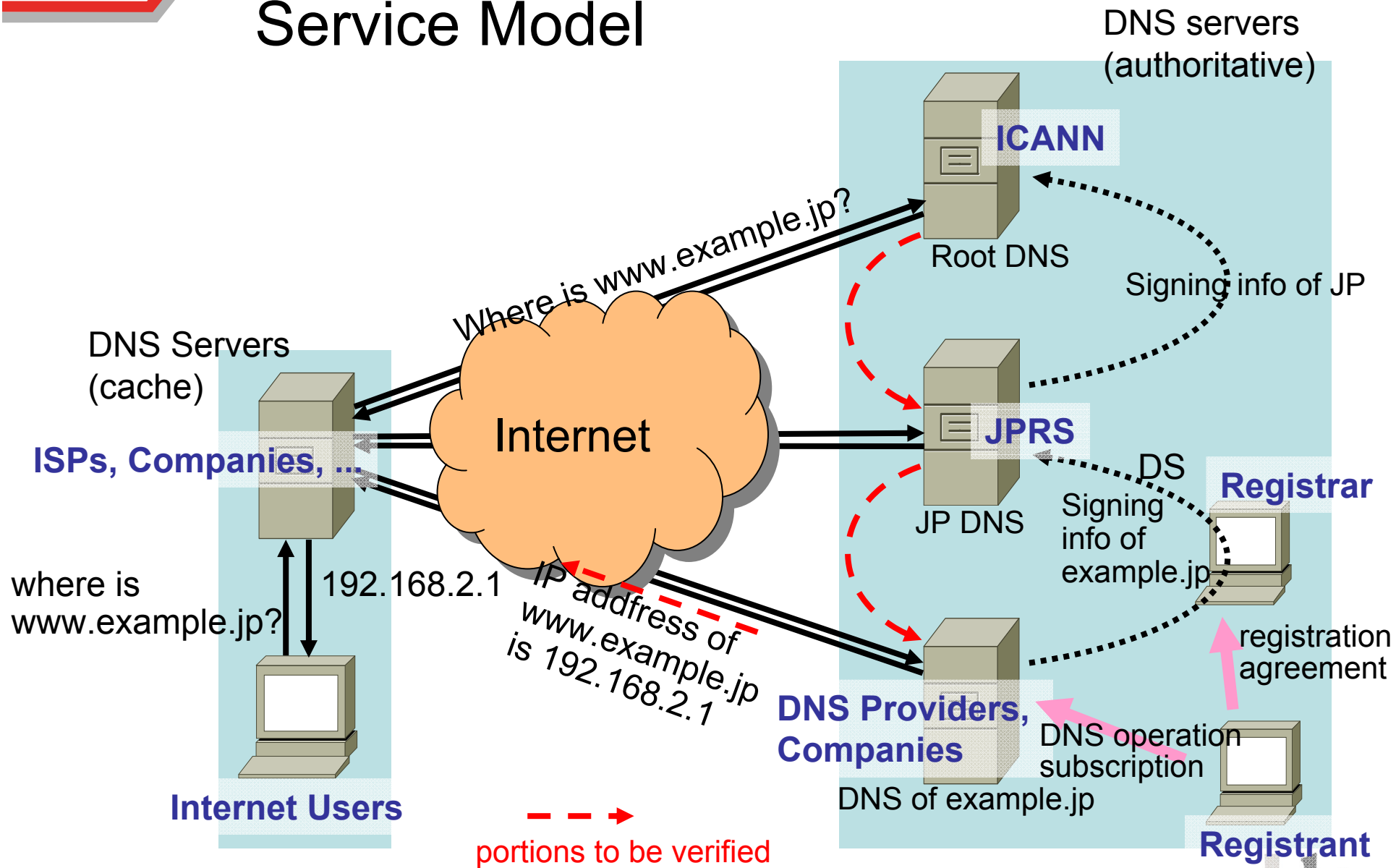
- **DNSSEC**

- is the most effective and feasible current solution against the security threats caused by frauds of DNS responses
- **will be launched by the end of 2010**

- **Cooperative actions by related parties needed**

- Operators of authoritative DNS servers
  - DNSSEC be introduced into all the layers of DNS
- Operators of cache DNS servers
  - Validation be done by cache DNS servers in ISPs, Companies, ...
- Domain name Registrars
  - Relevant information of domain names be channeled from Registrants (or DNS provider on behalf of them ) to Registry
- Internet users
  - had better know what DNSSEC does for them

# Service Model



# Three major aspects for DNSSEC introduction

- technical verification
  - 6 stepwise steps designed to involve following players
    - Registry
    - Secondary authoritative DNS operators
    - Registrars
    - DNS providers (ISPs, Companies, ...)
    - DNS cache operators (ISPs, Companies, ...)
    - System integrators
    - Hardware/Software (Routers, ...) vendors
- education + persuasion
  - various players above must be well educated and persuaded for them to be involved in DNSSEC
- system development
  - registry, registrar, DNS providers, ...

# Cost consideration

- Cost for implementation and operation
  - charged service or charge-free service ?
    - by registry
    - by registrars
    - by DNS providers
    - by ISPs
  - aiming at "charge-free" for Registrants and Internet users
- More consideration/arrangements needed
  - for customers to be motivated
  - for operators to be motivated

## Roles of the Registry (especially, 'cc')

- implement a DNSSEC-enabled registry system and operate authoritative DNS servers
- help registrars handle DNSSEC by giving information (in their language) and technical support (including software kit to handle DNSSEC)
- help DNS providers handle DNSSEC by giving information (in their language) and technical support (including software kit to handle DNSSEC)
- solicit influential users (e.g., banks) to stimulate the registrants/users

==> not just for the 'cc' but for all the domain names

# What JPRS is doing now

- technical verification of DNS in cooperation with various players
  - one year project
- development of registry system
  - will conduct co-testing with various players
- education
  - Registrars, ISPs, users, ...
- creation of an organization for DNSSEC promotion
  - working mainly with DNS operators, at first

(from now on)

- information sharing with various registries, registrars, ...