

Regulatory Demands to TLD Registries in Japan

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Background (1/2)

as of 2015 when regulation of DNS began to be discussed

- Growth of Internet and DNS usage
 - Internet User penetration 70.8 -> 82.8% (2005 -> 2013)
 - DNS queries 5 times more (2005 -> 2013)
- Number of TLDs
 - ~300 -> ~900 (2013 -> 2015)
 - TLD operators with less experience are emerging
- Complexity of DNS operation
 - Bigger zone
 - More frequent zone update
 - More DNS server instances
 - More cautions needed in operations (e.g., due to DNSSEC)

(reference : government's presentation in 2015)

Background (2/2)

- Major demands regarding infrastructure
 - (1) Service stability
 - (2) Financial stability
 - (3) Policy stability
- Regulation in Japan (**Telecommunications Business Act**) demands (1) and (2) to be secure
 - Based on the idea that “DNS has become important as part of the infrastructure”, DNS got caught up in this regulation
 - All the discussion was done under government Telecommunications Council
- As a result, not only ccTLD registry but also geo TLD registries became the scope of the Act.

Operators subject to the regulation

- Operators who provides “specified domain name telecommunication services” were subject to the regulation
 - Operators who provide **resolution services for authoritative DNS services** of ccTLD (.jp) and other geo TLD Registries
 - Operators who provides **resolution services for authoritative DNS services** for more than 0.3 mil sub domain names

Impact on TLD registries

- Who are named by the amended law
 - JPRS (.jp)
 - GMO Registry, Inc. (.nagoya, .tokyo, .yokohama)
 - BRregistry, Inc. (.okinawa)
 - Osaka Registry Co., Ltd. (.osaka)
- What obligations (below are principal ones)
 - Reporting significant accidents to gov.
 - Significant DNS failure (at the time of accident without delay)
 - Less significant failure (quarterly)
 - Publication of financial accounting statements (every year)
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Impact to JPRS

- **Small Impacts**
 - Publication of financial accounting statements
 - Documentation of administrative rules
 - **already documented before the new regulation**

- **Big Impact**
 - Reporting significant accidents to government
 - **Define the workflow and the scope of information collection & reporting**
 - **Contracts with outsource DNS operators need to be amended for Registry to be able to impose SLAs and reporting responsibility on them**

Overall

- In a sense, this regulation currently put was somewhat acceptable to JPRS
 - What we had been doing was the demand given by the law
 - What Registries must do was publicly defined for the first time
 - What JPRS wants to publish about the incident can be reported to a formal channel
- We need to keep alert on this slippery slope