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16 June 2017

Suzuki Shigeki
Vice Minister for Policy Coordination
Ministry of Internal Affairs and Communications

Re: Upcoming changes to root zone DNS Security Extensions

Dear Mr. Shigeki,

The mission of the Internet Corporation for Assigned Names and Numbers (ICANN) is to help ensure a stable, secure and unified global Internet. ICANN helps coordinate and manage the highest level of the domain name system (DNS), called the root zone. The root zone plays a critical role in how the DNS converts domain names to Internet addresses worldwide. Without this seamless DNS resolution process, the Internet could not operate the way it does today.

I am writing regarding an upcoming change to an important security configuration parameter related to the root zone, which is scheduled to take place on 11 October 2017.

The root zone is digitally signed using a security protocol called DNS Security Extensions (DNSSEC), which adds a layer of trust on top of the DNS by providing a way to authenticate DNS data. DNSSEC enables network operators to protect their users from a form of malicious attack known as "cache poisoning," that could redirect their users' traffic to an incorrect website to, for example, steal passwords or financial information. DNSSEC deployment is optional and not all network operators have enabled it, but operators who have deployed it could be affected by the upcoming change.

The DNS is organized in a hierarchy and ICANN manages changes to the top-most level of the DNS. ICANN also manages the top-most cryptographic key in the DNSSEC protocol, known as the root zone key signing key, or KSK. On 11 October 2017, ICANN will change this key, in a process called a key rollover. This is the first time the key will be changed since DNSSEC was enabled in 2010.

This change must be widely and carefully coordinated with network operators that have enabled DNSSEC to ensure that the rollover does not interfere with normal operations. ICANN is informing you about the change now so you can notify Internet operators and user communities in your country before this change occurs.

It is important that every Internet service provider or network operator that has enabled DNSSEC validation in your country updates their systems with the new KSK. To help ensure a smooth transition, ICANN would appreciate if you could contact operators in your country and inquire if they are ready for the KSK rollover. If an operator fails to update systems with the new KSK, end users in your country could encounter errors when looking up any domain name and thus, be unable to access the Internet on 11 October 2017.



According to the data available to us and our partners in the Regional Internet Registries, we believe that recursive resolvers within the following networks may be performing DNSSEC validation in your country and could be affected by the KSK rollover.

Please note that the recursive resolvers performing validation may be owned by the network operator, by customers of the network operator, or both. The data just shows which recursive resolvers within the network are validating, but not who operates those recursive resolvers.

Autonomous System Number (ASN)	Network Operator
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We encourage you to share ICANN's testing platform as an easy way for your operators to confirm their infrastructure supports the ability to handle the rollover without manual intervention. The testing platform can be found at <https://go.icann.org/KSKtest>.

An estimated 750 million people could be affected by the KSK rollover worldwide. It is critical that we coordinate our efforts to keep the Internet users in your country from experiencing difficulties with domain name lookups.

If you or your operators have any questions, you can contact my team by emailing globalsupport@icann.org with the subject line "KSK Rollover."

Thank you in advance for your support.

Göran Marby
President & CEO, ICANN

cc: ICANN Governmental Advisory Committee (GAC) Representatives from Japan
Kazuhiro Mita, Director, Computer Communications Division,
Telecommunications Business Department, Telecommunication Bureau, Ministry of
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Shin Takamura, Director for Global ICT Strategy, Computer Communications Division,
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