



KSK Rollover

DNSSEC For Everybody: A Beginner's Guide Office of the CTO | 4 November 2016

KSK Rollover: An Overview

ICANN is in the process of performing a Root Zone DNS Security Extensions (DNSSEC) Key Signing Key (KSK) rollover

- The KSK is a cryptographic public-private key pair:
 - Public part: trusted starting point for DNSSEC validation
 - Private part: signs the Zone Signing Key (ZSK)
 - Builds a "chain of trust" of successive keys and signatures to validate the authenticity of any DNSSEC signed data



KSK Rollover: An Overview

- As with passwords, the cryptographic keys used in DNSSEC-signing DNS data should be changed periodically
 - Ensures infrastructure can support key change in case of emergency
- This type of change has never before occurred at the root level
- The KSK rollover must be widely and carefully coordinated to ensure that it does not interfere with normal operations

DNSSEC



Who Will Be Impacted?

DNS Software Developers & Distributors

System Integrators

Network Operators

Root Server Operators

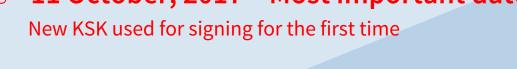
Internet Service Providers

End
Users
(if no action taken by resolver operators)



Don't Get Locked Out!

- To help ensure trouble-free Internet access for their users, Internet service providers, enterprise network operators and others who have enabled DNSSEC validation must update their systems with the public part of the new KSK (the root "trust anchor")
 - Available from https://www.iana.org/dnssec/files
- Key dates of the process when end users may experience interruption in Internet services:
 - **19 September, 2017** Size increase for DNSKEY response from root name servers
 - 11 October, 2017 Most important date New KSK used for signing for the first time





The old KSK is revoked





For More Information

- Visit https://icann.org/kskroll
 - Share this resource with others
- Our Join the conversation online:
 - Use the hashtag #KeyRoll
 - Sign up to the mailing list https://mm.icann.org/listinfo/ksk-rollover
- Ask a question to globalsupport@icann.org
 - Subject line: "KSK Rollover"
- Visit https://features.icann.org/calendar to find upcoming KSK rollover presentations

