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
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
  - **11 January, 2018**
    The old KSK is revoked
For More Information

- Visit https://icann.org/kskroll
  - Share this resource with others

- 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