

# **DNSSEC @!cr**

## **Continuous Improvement**

**DNSSEC Activities Panel, ICANN 62**  
**June, 2018**





Operational Practices

KSK Rollovers

Capacity Building

Challenges and Actions





# Operational Practices



# DNSSEC @.CR: Operational Practices



## Practices and Procedures

Yearly DNSSEC Key Ceremony with external witnesses + KSK Rollover

DNSSEC signing material is generated for the whole year

ZSK rotates every 2 months

Combination of offline Smartcards for key generation + Online Software signing

Cost-effective model, low administrative load, highly replicable





# KSK Rollovers





# DNSSEC @.CR: KSK Rollovers



## KSK Rollovers

Double-DS KSK Rollover, defined in RFC 6781, section 4.1.2

New DS is pre-published in IANA, but manual approval and justification is required

Current IANA system requires both DNSKEYs to be published at the same time

Due to manual approval, it requires to be well planned ahead of time





# Capacity Building





# DNSSEC @.cr: Capacity Building



## Key Activities

Full size Workshops - 1 week long

Participation in local and regional events

Talks at Universities for advanced students

Technical assistance and training for government institutions , banks and critical infrastructure operators

Custom trainings for ISPs



# DNSSEC @.cr: Impact of local ISP trainings



Results of local DNSSEC validation training







**Work in progress...**





# DNSSEC @.cr: **Work in progress**



## Main Challenges

Less than 1% .cr signed domains

KSK Rollover process

## Actions

Deployment of Automatic Keyset Management (RFCs 7344 and 8078)

NIC.CZ direct collaboration through implementation in FRED

Working with DNS Hosting companies to turn on DNSSEC by default for .cr domains

Awareness activities with CRIX Members, NOG-CR, and interested parties





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