

# Updating Secure Delegations in the DNS Root Zone

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# Introduction

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- DS record management for root zone is built-in to the same workflow as all other root zone management changes.
  - From TLD managers POCs via self-service RZMS, or any party via multiple means
  - Trust model does not depend on who submitted them
- Validation and verification processes
  - Consent
  - Matching DNSKEY at zone apex for each DS
    - Proof of zone possession
    - Challenges
  - Validate SOA via at least one DS
  - Subset of accepted algorithm types

# Active work

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- Next generation Root Zone Management System finishing development, contains process improvements
  - First next-gen first release implements new 'authorizer' model
    - Responsibility changes
    - Granularity
  - Subsequent releases:
    - Adapt tech check waiver process
      - Move from pass/fail to pass/fail/warn?
      - Permanent waivers?
    - Multifactor authentication?
  - API with focus on high-volume requirements

# Future ideas

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- Root Zone Update Study outcomes
- Tech check review
  - Supported algorithms, adding and removing
  - DNSKEY match
- Monitoring child signals
  - CDS/CDNSKEY considered, not prioritized — no demand
  - General monitoring
    - NS-set evolution (and/or CSYNC), tech check regressions, account attributes
    - Part of a holistic view of signals for operator to review, trigger change requests

**Thank you!**

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