

Automation of DS updates in gTLD space

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How Automated DS Updates Work

- Registrant, or their DNS provider, place CDS, or CDNSKEY records in their DNS zone (e.g., under example.com)
- The records constitute a “request” to make a change in the parent zone, in this example, the .com TLD
- The registry or registrar periodically scan their child (or registrant’s) zones, e.g. the registry for .com scans example1.com, example2.com, etc.
- Upon discovery of CDS, or CDNSKEY records, corresponding changes are made in the parent zone
- This allows the registrant/DNS provider to securely (thanks to DNSSEC) request updates in the parent zone

Contractual/Policy Requirements in gTLDs

gTLD Registries

- gTLD registries can add, modify, or remove an existing registry service following the Registry Services Evaluation Policy (RSEP)
- Registries are encouraged to seek an informal consultation with ICANN Org before submitting an RSEP request

ICANN-Accredited Registrars

- Neither the registrar accreditation agreement nor consensus policies require ICANN org to review new registrar services

ICANN has flagged some potential issues with current technology:

<https://www.icann.org/en/system/files/correspondence/crain-to-crocker-thomassen-06mar23-en.pdf>

Adding or Modifying Contractual/Policy Requirements

Through community-developed Consensus Policies

- The Generic Names Supporting Organization (GNSO) is responsible for developing Consensus Policies for gTLDs
- All gTLD registry operators and ICANN-accredited registrars are contractually bound to implement and comply with Consensus Policies, including on “issues for which uniform or coordinated resolution is reasonably necessary to facilitate interoperability, security and/or stability of the Internet or the DNS”

Through Contract Amendments to the Registry Agreement and/or Registrar Accreditation Agreement

- The RA and RAA contain specific provisions describing the negotiation and amendment process for each of these contracts