

Next Round gTLD Registry Agreement Proposed Changes

**Proposed Changes to the Base gTLD Registry Agreement in the New gTLD
Program: Next Round Regarding DNS**

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Starts Soon: New gTLD Program: Next Round

- For Registry Service Providers (RSPs), the pre-evaluation application period opens **19 November 2024** (“real soon now”).
 - Closes **20 May 2025**.
- Organizations providing DNS and DNSSEC services to Registry Operators are considered RSPs and ***MUST*** apply to the program to offer services to new gTLDs.
- For more information:
 - <https://newgtldprogram.icann.org/en/application-rounds/round2/rsp>
 - Or see me afterward.

Background

- ICANN will soon launch the initial phases of the New gTLD Program: Next Round.
- As part of this program, the gTLD Base Registry Agreement (RA) is being updated and will be used for all gTLDs applied for in the Next Round.
- The anticipated changes affect several of the critical functions: DNS, EPP, and Data Escrow.

Nothing is Final (Yet)

- All changes to the gTLD Base Registry Agreement are a work-in-progress. The information presented here is a summary of proposed changes regarding DNS and registry technologies.

NOTHING IS FINAL.

- The ICANN community will be reviewing the proposed changes in the near future, which provides an opportunity for interested parties to provide feedback and advice on those changes.

Security, Stability and Innovation

Security & Stability

ICANN's role is to ensure the security and stability of the DNS. Making changes to how gTLD registries operate requires careful consideration of both technology, delivery of service, accountability to the community, and contractual relations with gTLD operators and registrars.



Innovation

ICANN will be proposing a mechanism to enable Registries to incorporate innovative technologies faster than today while keeping commitments to security and stability of the DNS. For example, making DELEG usable in gTLDs as soon as the technology is considered mature enough for adoption. The list of technologies and services is intended to grow over time.

Proposed RA Changes & new Registry Services

1

ZONEMD

Registry Operators may add ZONEMD resource records.

4

Specification Compliance

Compliance with updated standards specification will no longer be automatic.

2

DNS Transports

In addition to DNS over UDP/TCP, Registry Operators may also offer DoH, DoT, and DoQ.

5

EPP

The EPP Launch Extension (RFC 8334) will be required for implementing mandatory rights protection mechanisms. All EPP extensions must be registered in the Extension Registry.

3

Zone Delegation

ICANN may delay new delegations into the root for stability reasons.

6

Bulk Registration Data Access

ROs must provide ICANN Org with BRDA deposits on a daily basis. SLRs for full deposits will also be tighter. Additional data elements must be included in deposits.

- Registry Operators will have the option to add ZONEMD resource records to their gTLD zones.
- ZONEMD is defined by RFC 8976. It “provides a cryptographic message digest over DNS zone data at rest.”
- Use of either SHA384 or SHA512 hash algorithms is at the discretion of the registry.
- Note: ZONEMD records will not be in zone files available via CZDS due to normalization of names in the CZDS process.

DNS Transports

- In addition to DNS over UDP and TCP, Registry Operators may also offer authoritative DNS over:
 - TLS (RFC 7858)
 - HTTPS (RFC 8484)
 - QUIC (RFC 9250)
- To activate these services, the Registry Operator must notify ICANN Org before deployment.

DoH, DoT, & DoQ Service Level Requirements

- The Service Level Requirements (SLRs) for these additional DNS transports will be the same as DNS over TCP.
- However, no Emergency Threshold is applicable to these protocols (i.e. not a determining factor in registry failure).
- If a Registry Operator cannot meet the SLRs for these or ICANN determines there are adverse effects to the security or stability of the DNS, ICANN may instruct the Registry Operator to withdraw these transports from service.

DoH, DoT, & DoQ Reporting Requirements

- If a Registry Operator implements any of these new DNS transports, they must report query traffic data to ICANN in the Registry Functions Activity Report.

New gTLD Zone Delegation

- The Root Server System Advisory Committee (RSSAC) recommends that ICANN should not allow the root zone to grow by more than 5% of delegations per month.
- As new gTLDs come online, ICANN may temporarily delay processing of delegation requests to maintain a safe rate of change for the root zone.
 - Allow for monitoring of DNS service instability.

Specification Compliance

- From time to time, the IETF updates or modifies DNS specifications.
- In the past, the RA specified compliance with RFCs “or their successors”.
 - This puts pressure on the gTLD registries to immediately implement updates.
 - Not all RFC updates are applicable to gTLD registries.
- Going forward, Registry Operators will not need to comply with updates or successor documents unless notified by ICANN.

- The Launch Extension (RFC 8334) was developed by the registry and registrar community during the launch of the 2012-round gTLDs and become the de-facto standard for implementing Sunrise and Trademark Claims. For Next Round gTLDs, use of the Launch Extension will be mandatory.
- All EPP extensions used by gTLD registries **MUST** be registered in the IANA EPP Extensions Registry (RFC 7451).

Bulk Registration Data Access

- Registries currently provide a weekly “thin” (BRDA) deposit to ICANN org. For the New gTLD Program: Next Round, this must be provided every 24 hours.

Engage with ICANN – Thank You and Questions



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