

RSSAC028: Scope of Work

- Consider changes to the current naming scheme, in particular whether the names assigned to individual root servers should be moved into the root zone from the root-servers.net zone;
- Consider the impact on the priming response of including DNSSEC signatures over root server address records;
- Perform a risk analysis;
- Make recommendations on whether changes should be made, and what those changes should be.

RSSAC028: Naming Schemes Considered

1. The current naming scheme
2. The current naming scheme with DNSSEC
3. In-zone names
4. Shared delegated TLD
5. Names delegated to each operator
6. Single shared label for all operators

RSSAC028: Maximum Response Sizes

Scheme	Size
Current	1097
Current with DNSSEC	3833
In-zone names	3938
Shared TLD	4093
Per-operator delegations	1133
Single shared name	1485

Tested implementations: BIND 9.10.3, NSD 4.1.13, Knot 2.2.0, Knot 2.3.0

RSSAC028: Recommendations

1. No changes should be made to the current naming scheme used in the root server system until more studies have been conducted.
2. Understand the current behavior of DNS resolvers and how each naming scheme discussed in this document would affect these behaviors.
3. Understand the feasibility and impact of node re-delegation attacks.
4. Explore options for minimizing the size of a signed priming response.