An Initiative to Promote DNS Operational Best Practices

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What Is It?

**Knowledge-sharing and Instantiating Norms for DNS**
(Domain Name System) and **Naming Security**

An initiative supported by ICANN to produce a simple framework that can help a wide variety of DNS operators, from small to large, to follow both the evolution of the DNS protocol and the best practices that the industry identifies for better security and more effective DNS operations.

..... is pronounced **"kindness"**
Each category has 6-8 practices that we will encourage operators to implement. See www.kindns.org, for more details.

By joining KINDNS, DNS operators are voluntarily committing to adhere to these identified practices and act as “goodwill ambassadors” within the community.
1. Operators in each category can self-assess their operational practices against KINDDNS and use the report to correct/adjust unaligned practices.

   - Self-Assessment is anonymous, and reports can be downloaded directly from the web site.

2. Operators can participate in one or multiple categories covered by KINDDNS.

3. Beyond participating as Operator, organizations can also soon participate as sponsors.
Early Observations

1015 Views
Number of times your questionnaire has been opened by someone

608 Starts
Number of times someone clicked the start button of the questionnaire

158 Partial responses
Number of responses saved with save and continue, but not finished yet

37 Unfinished responses
Number of times someone exited questionnaire without a complete response

Why are you taking this self-assessment?

To know where I stand with KIN...
79% (257)

To join KINDNS
24% (79)

To use the result to convince ...
33% (108)

Other
13% (41)

Part 1 Core DNS Operation Practices Assessment – Which component(s) of the DNS do you run?

Authoritative Servers
22% (67)

Recursive Servers
16% (47)

Managed by a Third Party
6% (17)

Both
56% (168)
Early Observations (con’t)

As Authoritative Nameserver manager for one or more TLDs or Critical Zones, I implement and adhere to the following practices:

- Practice 1: My authoritative zone... 76% (59)
- Practice 2: Access to zone tra... 77% (60)
- Practice 3: I have a process i... 64% (50)
- Practice 4: My authoritative n... 81% (63)
- Practice 5: I am using at leas... 76% (59)
- Practice 6: My network infrast... 58% (45)
- Practice 7: The infrastructure... 63% (49)
- Practice 8: My authoritative s... 51% (40)

As operator of Authoritative Nameserver(s) for one or more Second Level Domains (SLDs), I implement and adhere to the following practices:

- Practice 1: My authoritative z... 53% (69)
- Practice 2: Access to zone tra... 85% (112)
- Practice 3: I have a process i... 50% (65)
- Practice 4: My authoritative n... 82% (107)
- Practice 5: I am using at leas... 72% (94)
- Practice 6: The infrastructure... 81% (106)
Early Observations (con’t)

As a Private Recursive Resolver operator, I implement and adhere to the following practices:

- Practice 1: I have DNSSEC validated... 69% (63)
- Practice 2: I use ACLs to restrict... 82% (75)
- Practice 3: I have a QNAME minimization... 42% (38)
- Practice 4: My resolvers don’t... 71% (65)
- Practice 5: I have at least one... 78% (71)
- Practice 6: The infrastructure... 77% (70)

As a Shared Private Recursive Resolver operator, I implement or adhere to the following practices:

- Practice 1: I have DNSSEC validated... 57% (16)
- Practice 2: I use ACLs to restrict... 86% (24)
- Practice 3: I have a QNAME minimization... 25% (7)
- Practice 4: My resolvers don’t... 64% (18)
- Practice 5: My recursion service... 61% (17)
- Practice 6: The infrastructure... 71% (20)

As operator of a Public Recursive Resolver, I implement or adhere to the following practices:

- Practice 1: I have DNSSEC validated... 85% (28)
- Practice 2: I have a QNAME minimization... 76% (25)
- Practice 3: I have DNS-over-TLS... 58% (19)
- Practice 4: My resolvers don’t... 79% (26)
- Practice 5: I only retain data... 76% (25)
- Practice 6: My overall recursion... 76% (25)
- Practice 7: My network infrastructure... 82% (27)
- Practice 8: The infrastructure... 85% (28)
Current Focus: Phase 2

- Launching the **enrollment management** tool

- Continue to **engage with operators** to get them on board:
  - *Direct 1:1 Engagements*
  - *Workshops & webinars to raise awareness on KINDDNS practices as part of our overall DNS ecosystem security awareness program.*

- **Translating** the website and the tools into other languages (*starting with the self-assessment and enrollment tools*).

- Working with the community **to define indicators that can help measure** elements of the global DNS operation that are impacted by KINDDNS practices’ implementation.

- **Evolving the Self-assessment** tool to be able to assess all or part of how operators implement the practices.

- Continue to encourage operators and partners to **contribute and improve** the practices of framework.
Discussion points:

1. **Adding Response Rate Limiting (RRL) to Authoritative Servers' practice**
   - ccTLD and critical Zone Operators
   - Other SLDs too?

2. **Addressing ‘Split’ responsibilities for Authoritative servers’ operation:**
   - Zone file content is controlled by a third party. i.e Root server operators and the root zone itself.

3. **Access reliability:** Reachability over IPv6, RPKI for the prefix used for the DNS servers.

4. **Review team:** Volunteers from the community to work with staff to help with assessing participating candidates or other aspect of KINDDNS practice evolution.
## How to Stay Informed and Contribute

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Where you can still find all the working documents.
Engage with ICANN

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