KINDNS
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

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"
Targeted Operators

• 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.
Participation/Enrollment

High uptake for Self-assessment
Why are you taking this self-assessment?

- To know where I stand with KIN... 74% (816)
- To join KINDNS 32% (349)
- To use the result to convince ... 40% (444)
- Other 10% (114)

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

- Authoritative Servers 27% (274)
- Recursive Servers 23% (233)
- Both 45% (455)
- Managed by a Third Party 5% (50)

What Type of Authoritative Zone Do You Manage? - Type(s) of authoritative zone that you manage

- Both 27%
- TLDs 23%
- SLDs 44%
As operator of a Public Recursive Resolver, I implement or adhere to the following practices:

- Practice 1: I have DNSSEC validation enabled
- Practice 2: I have QNAME minimization
- Practice 3: I have DNS-over-TLS
- Practice 4: My resolvers don’t return the original question name
- Practice 5: I only retain data for one day
- Practice 6: My overall recursive cache is configured
- Practice 7: My network infrastructure is resilient
- Practice 8: The infrastructure is designed for high availability

Bar chart showing percentages of responses.
KINDNS v.2 - 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, or registrars hosting DNS for registrants

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

4. **Steering Committee and Community review team**:
   - Volunteers to help steer the evolution KINDNS as framework and coordinate the initiative.
Outreach

- **Success story**
  - 70% of enrollment requests comes from LAC region
  - **Success Story:** KINDNS adopted by CGI.br as DNS security framework for the country.
  - Volunteers from the community to help translate KINDNS

- **What we are doing in every region**
  - More than 20 distinct KINDNS events last year.
  - Use KINDNS as the framework for DNS Ecosystem security practices engagement.
  - Present KINDNS at technical events (ISPs, DNS Operators, ...).
  - **KINDNS Clinics:** 1:1 session with Operators
  - Plan training around the implementation of KINDNS practices
  - Help keep the KINDNS community alive (Mailing list, soon to be launched Ambassador program, etc... )
Current Focus

- **Community engagement**
  - Continue to encourage operators to get onboard to **contribute and support** the framework:
    - Direct 1:1 Engagements (KINDNS Clinics) to get more operators to join
    - Continue workshops & webinars to raise awareness on KINDNS practices as part of our overall DNS ecosystem security awareness program.
    - DNSAthon around KINDNS practices
    - Develop partnerships with programs such as MANRS and Pulse, internet.nl, etc ...

- **Communication**
  - A more active communication plan to further promote KINDNS
    - Translate the web site and the self assessment form in other languages
    - Publish a series of DNS best practices dedicated blogs
    - Develop toolkits to help operators engage with internal decision-makers
Stay Informed and Contribute

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