KINDNS

KINDNS

An Initiative to Promote DNS Operational Best Practices

David Huberman
ICANN's Office of the CTO

What Is It?

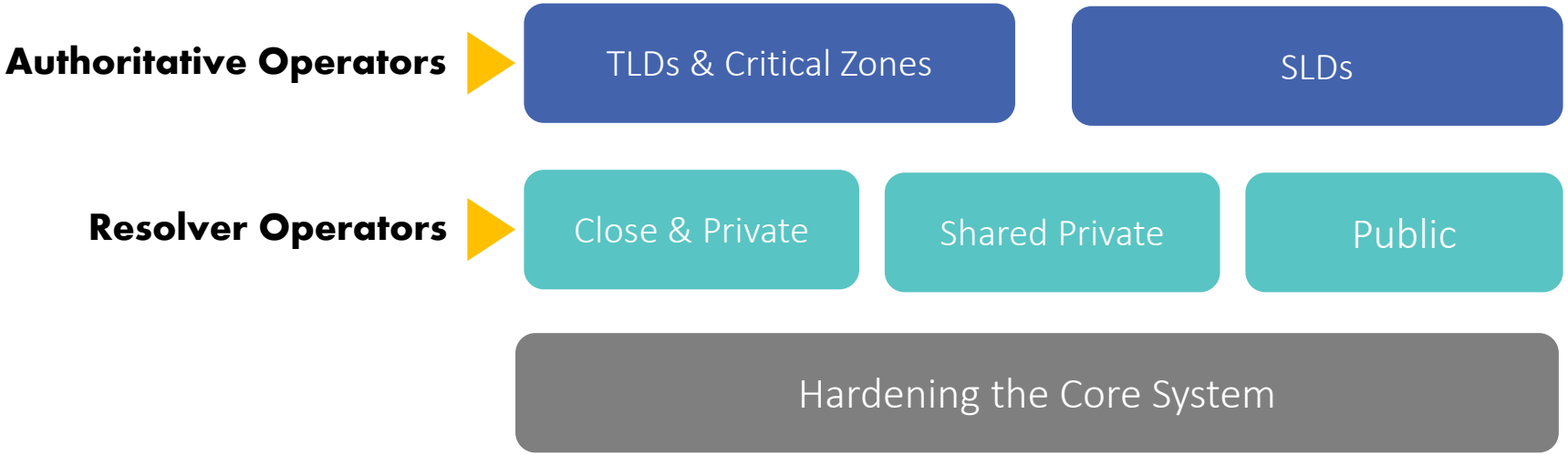
Knowledge-sharing and **I**nstantiating **N**orms for **D**NS
(Domain Name System) and **N**aming **S**ecurity

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**"*

KINDNS

Targeted Operators



- Each category has 6-8 practices that we 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.

KINDNS

Self-assessment & Enrollment

Operators in each category can self-assess their operational practices against KINDNS and use the report to correct/adjust unaligned practices.

- self-assessment is anonymous
- reports can be downloaded directly from the web site.

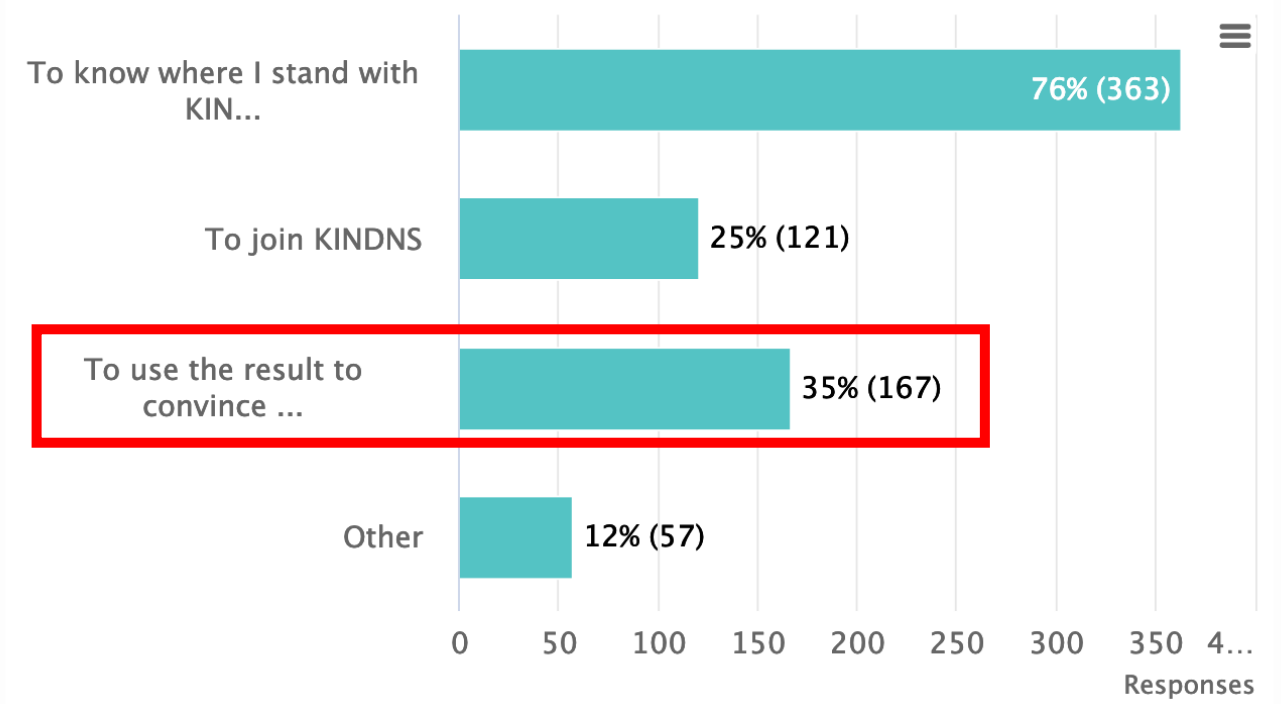
Operators can enroll as participant to one or many categories covered by KINDNS.

- Participation in the KINDNS initiative means voluntarily committing to implement/adhere to agreed practices.
- Participants become goodwill ambassadors and promote best practices.

KINDNS

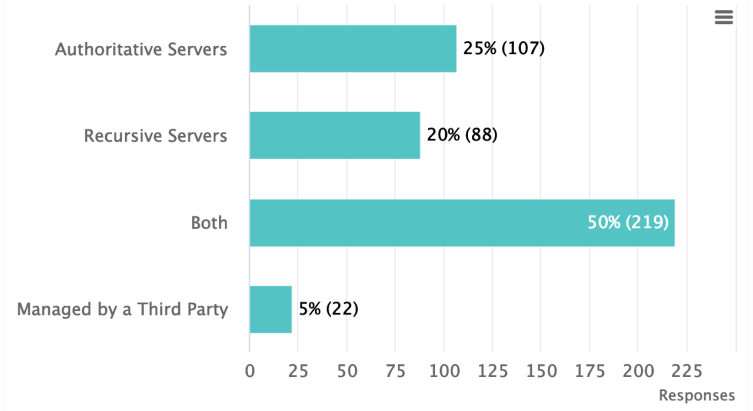
Why are you taking this self-assessment?

Bar chart



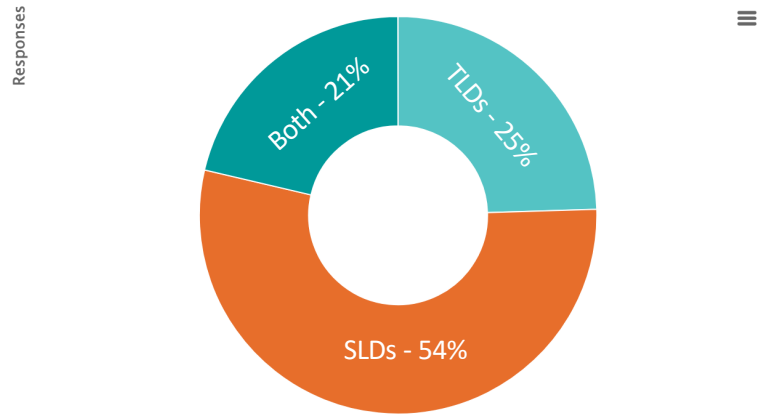
Part 1 Core DNS Operation Practices Assessment – Which component(s) of the DNS do you run?

Bar chart



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

Donut chart



What type of Recursive R
resolvers you run

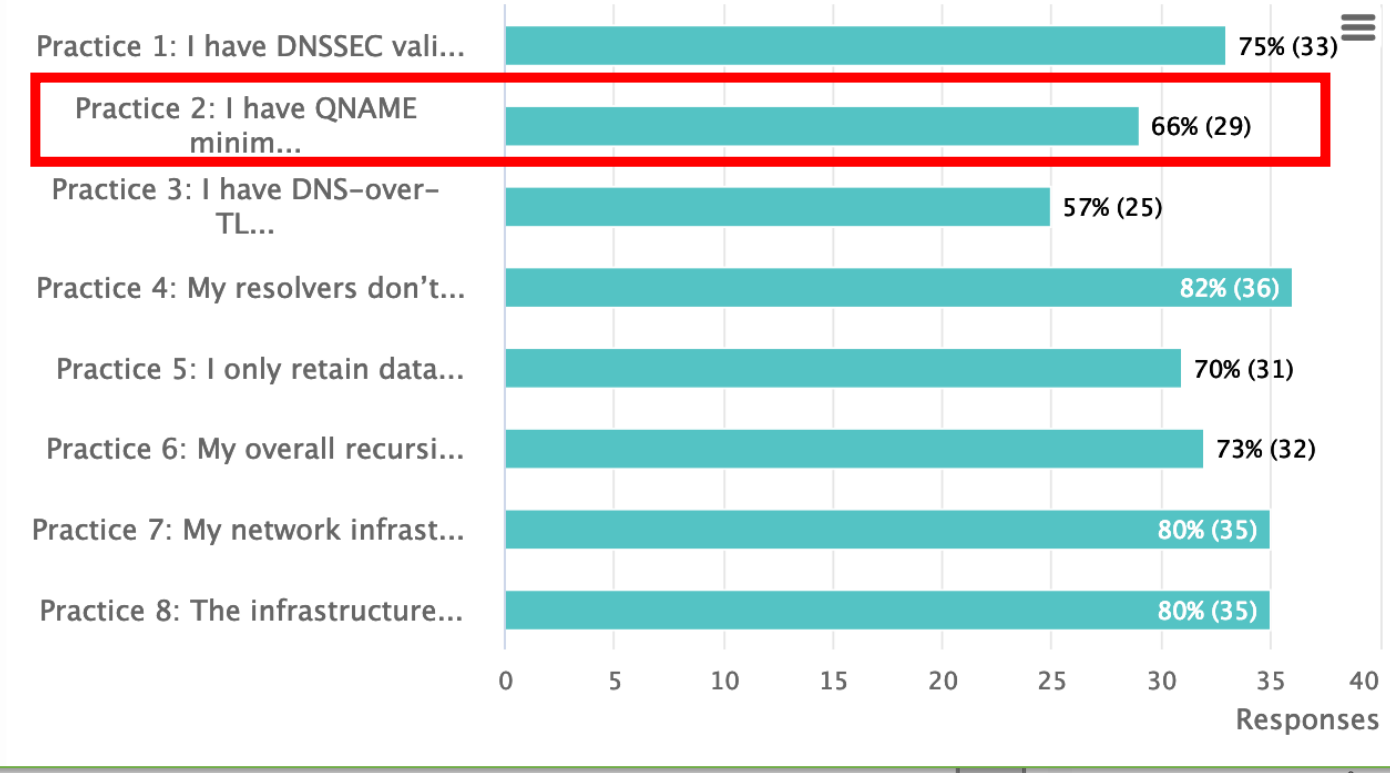
Private Recursive Reso

Shared Private Recurs
Reso...

Public Recursive Reso

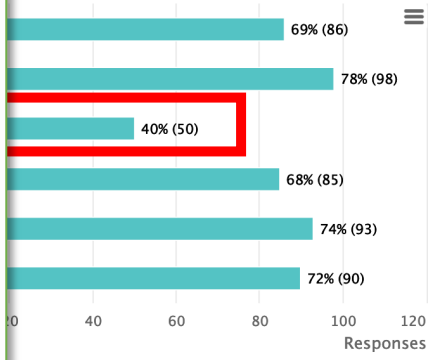
As operator of a Public Recursive Resolver, I implement or adhere to the following practices :

Bar chart



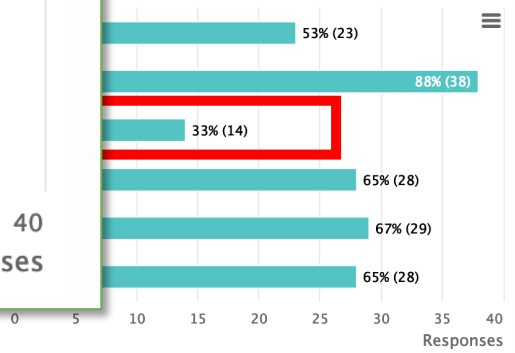
As a Private Recursive Resolver operator, I implement and adhere to the following practices:

Bar chart



rator, I implement or

Bar chart



Current Focus: Phase 2

Service Platform Hardening

- **Front-end**
  - Re-Activate the full **enrollment form**
  - **Translate** the website and the tools into other languages
  - **Evolve the Self-assessment** tool to technically measure/assess how operators implement the practices.
    - Two views: Internal & External
    - Ability to measure implementation by collecting anonymized data from the self-assessment tool.
    - Integrate a Zonemaster version for Authoritative servers

- ***Back-end***
  - *Integrate the KINDNS server to ICANN E&I monitoring service*
  - *Implement a ticketing system to better track interactions with the public.*
  - *Improve the security fence around WordPress*
  - *Deploy an integrated enrollment management tool (a WP plugin)*
  - *Renew ICANN infosec assessment.*
  - *Directly link self-assessment to enrollment*
  - *Develop an integrated tool to simplify/automate Operator compliance assessment*

KINDNS

Current Focus: Phase 2 (con't)

Community Engagement

- **Community engagement**
  - Continue to encourage operators to get onboard to **contribute and support** the framework:
    - *Direct 1:1 Engagements*
    - *Convince/Encourage more open resolver operators to join*
    - *Workshops & webinars to raise awareness on KINDNS practices as part of our overall DNS ecosystem security awareness program.*
    - DNSAthon around secure DNS operations
    - Develop partnerships with programs such as MANRS and Pulse, internet.nl, etc …
- **Communication**
  - A more active communication plan to further promote KINDNS
    - Publish a series of DNS best practices dedicated blogs
    - Develop toolkits to help operators engage with internal decision-makers

KINDNS

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.

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

4. **Community review team**:
   - Volunteers from the community to work with staff to help with assessing participating candidates or other aspect of KINDNS practice evolution.

KINDNS

Stay Informed and Contribute

Website	www.kindns.org
Twitter	https://twitter.com/4KINDNS
E-Mail	info@kindns.org
Mailing list	kindns-discuss@icann.org

KINDNS