Open Source Software in DNS and Name Registration Infrastructure

An ICANN's Security and Stability Advisory Committee (SSAC) Work Party

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Disclosure

- **Presenting this on behalf of the ICANN SSAC Open-Source Work Party**

- **I'll try and answer questions but they will just be my views. You can also ask Maarten, Raffaele & others**

- **Still early days in the WP**
  - **This is mostly a heads-up, and to let you know we'll be asking for input and feedback**

What is ICANN SSAC

- **Security and Stability Advisory Committee**
  - Advises ICANN community and Board on security and integrity matters related to Internet naming and address systems

  - Ongoing threat assessment and risk analysis to assess principal threats to stability and security of these systems

- Publications: https://www.icann.org/en/ssac/publications

<u>Open Source Work Party</u>

- **Analyze adoption of open-source software in DNS supply chain**

- **Focus on:**
  - **recursive & authoritative nameservers**
  - **RDAP/WHOIS**
  - **EPP/registry**
  - **escrow functions**

<u>Open Source Work Party</u>

- Examine the broader implications of Free and Open-Source Software (FOSS) used in the Internet's domain name infrastructure.

- Ubiquitous use and integration of FOSS in products and services has gone unnoticed by non-practitioners, including policymakers.

- **This effort aims to make operational reliance on FOSS in the Internet's domain name infrastructure visible in policy discussions.**

  - So that policy development can account for (unintended) secondary effects that can pose a threat to the FOSS development model and onwards to the security and stability of the Internet's naming and address allocation systems.

- **Ultimately, this Work Party aims to clear up misinformed assumptions by regulators and policy makers that may threaten the development and supply model, including those relied upon by operators in the Internet's domain and routing systems**

Regulators and policy makers don't understand the benefits, scope and scale of FOSS in Internet Infrastructure

Anticipated Timeline

- 28 February 2025: End of survey period
- Early June 2025: Report by ICANN 83 Meeting

SSAC reports: https://www.icann.org/en/ssac/publications

So, why am I telling you this?

A survey!
Yay, a survey!

Your views matters!
Regulation of Open Source WILL directly affect you, either directly or the developers you use.

Please help us learn about upcoming regulation in your country, region, etc.

https://ec.europa.eu/eusurvey/runner/SSAC-open-source-software
-in-DNS-and-registration-infrastructure

US Executive order, mandating among other things: encrypted DNS, security assessment of FOSS:
https://www.whitehouse.gov/briefing-room/presidential-actions/2025/01/16/executive-order-on-strengthening-and-promoting-innovation-in-the-nations-cybersecurity/

CISA Secure by Design pledge:
https://www.cisa.gov/sites/default/files/2024-05/CISA%20Secure%20by%20Design%20Pledge_508c.pdf

CISA Software Security Attestation Program:
https://www.cisa.gov/secure-software-attestation-form

EU: Market entry requirements ("CRA") for digital products (including software):
https://eur-lex.europa.eu/eli/reg/2024/2847/oj/eng

EU: Supply chain security requirements ("NIS2 IA") for DNS service providers, TLD name registries:
https://eur-lex.europa.eu/eli/reg_impl/2024/2690/oj/eng

EU: Product Liability Directive
https://www.europarl.europa.eu/RegData/etudes/BRIE/2023/739341/EPRS_BRI(2023)739341_EN.pdf

UK: Code of practice for software vendors:
https://www.gov.uk/government/calls-for-evidence/a-code-of-practice-for-software-vendors-call-for-views/call-for-views-on-the-code-of-practice-for-software-vendors

UK: Digital, Data and Technology Playbook:
"Software should be open-source and designed to allow access in a platform-agnostic way."
https://www.gov.uk/government/publications/the-digital-data-and-technology-playbook/the-digital-data-and-technology-playbook

For more information or to provide feedback

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Questions?

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