SAC129
SSAC Comments on GNSO Domain Name Registration Data Accuracy Concept Proposal

A Report from the ICANN Security and Stability Advisory Committee (SSAC)
07 July 2025

Preface

This is a comment to the Generic Names Supporting Organization (GNSO) Council in response to their Concept Proposal on Accuracy Scoping from the ICANN Security and Stability Advisory Committee (SSAC).

The SSAC focuses on matters relating to the security and integrity of the Internet's naming and address allocation systems. This includes operational matters (e.g., pertaining to the correct and reliable operation of the root zone publication system), technical administration matters (e.g., pertaining to address allocation and Internet number assignment), and registration matters (e.g., pertaining to registry and registrar services). SSAC engages in ongoing threat assessment and risk analysis of the Internet naming and address allocation services to assess where the principal threats to stability and security lie, and advises the ICANN community accordingly. The SSAC has no authority to regulate, enforce, or adjudicate. Those functions belong to other parties, and the advice offered here should be evaluated on its merits. SSAC members participate as individuals, not as representatives of their employers or other organizations. SSAC consensus on a document occurs when the listed authors agree on the content and recommendations with no final objections from the remainder of the SSAC, with the exception of any withdrawals included at the end of the document.

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1 Introduction

The Security and Stability Advisory Committee (SSAC) welcomes this opportunity to provide input to the Generic Names Supporting Organization (GNSO) Council about domain name registration data accuracy and its Accuracy Scoping Team effort.[1] We recognize that our response is later than intended, and we greatly appreciate the GNSO's consideration of our comments.

2 Responses to Threshold Questions

What are concrete and articulable examples of what inaccurate data DOES prevent or inhibit, and how does it do so?

Accurate domain name registration data contributes to Internet security and usability.[2] Inaccurate data hinders communication, law enforcement, and domain operations. The SSAC underscores the importance of data accuracy. Specifically:

- **Usability:** Inaccurate data hinders the intended purpose of data collection, impacting communication and identification.
- **Security:** Inaccurate contact data can impair law enforcement, anti-abuse efforts, and timely notifications about technical issues or cyberattacks, such as ransomware.
- **Operational Efficiency:** Inaccurate data in fields like "Create Date," "Last Updated," and "Sponsoring Registrar" disrupts security analysis, domain transfers, and dispute resolution.
- **SSAC's Stance:** The SSAC has consistently emphasized the need for accurate domain name registration data, highlighting the role of Registration Data Directory Services (RDDS) in enabling legitimate communication and preventing abuse.[3,4,5]

What are concrete and articulable examples of what inaccurate data does NOT prevent?

Inaccurate data does not prevent or disrupt an abusive registrant from continuing to use a domain for abusive behavior. Inaccurate or incomplete data does not entirely prevent mitigation or prevention of harm, particularly in combination with other techniques. But more data enables more complete and useful analysis.

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[1] See Concept Proposal: Structured SG Assignments for Addressing Accuracy Scoping Team Recommendations and Way Forward, https://gnso.icann.org/sites/default/files/policy/2024/draft/draft-concept-proposal-accuracy-12sep24.pdf

[2] See SAC058: SSAC Report on Domain Name Registration Data Validation, https://itp.cdn.icann.org/en/files/security-and-stability-advisory-committee-ssac-reports/sac-058-en.pdf

[3] See SAC058: SSAC Report on Domain Name Registration Data Validation, https://itp.cdn.icann.org/en/files/security-and-stability-advisory-committee-ssac-reports/sac-058-en.pdf

[4] See SAC101v2: SSAC Advisory Regarding Access to Domain Name Registration Data, Section 3, https://itp.cdn.icann.org/en/files/security-and-stability-advisory-committee-ssac-reports/sac-101-v2-en-14-11-2023-en.pdf

[5] See SAC115: SSAC Report on an Interoperable Approach to Addressing Abuse Handling in the DNS, https://itp.cdn.icann.org/en/files/security-and-stability-advisory-committee-ssac-reports/sac-115-en.pdf

Are there specific stakeholders, industries, or sectors particularly vulnerable to the effects of inaccurate registration data? If so, what are they and why?

A previous ICANN community effort found that the "collection, maintenance, and provision of gTLD registration data, as well as potential solutions to safeguard and improve the accuracy and accessibility of that data, is an issue that affects many (if not all) of ICANN's stakeholders and in particular GNSO Stakeholder Groups and Constituencies."[6]

The appendix of SAC058 lists some stakeholders of registration data along with generally accepted purposes and use cases for registration data according to those stakeholders.[7]

Some users rely heavily on domain name registration data for security, investigative, and operational use cases and face drawbacks from inaccurate data. These users include law enforcement, security service providers, reputation blocklist operators, and researchers. Additionally, brand owners combating phishing, companies monetizing user data, and providers of essential services (e.g., operating systems, certificate authorities, web browsers, email, messaging, and social media) also suffer negative impacts.[8]

During investigations, law enforcement may need to identify the entities responsible for registering and operating domain names. Inaccurate data can impair that process and slow it down.

Internet users are frequently protected in some manner by systems that use reputation blocklists and/or domain reputation scoring, deployed to protect apps, email, messaging services, web browsing, and more methods that incorporate registration data as part of their algorithms.[9]

Given the examples provided in response to the three questions above (if any), please articulate a short problem statement for accuracy. The problem statement should consider:

1. **What is the current problem or challenge?**
2. **What are the consequences of this problem or challenge?**
3. **What is the ultimate objective of working on this problem or challenge?**
4. **Considering the limitations of data processing, how do you propose to address this problem?**

The SSAC is not issuing a formal problem statement at this time. However, we recommend the GNSO include the following components in its considerations:

- **Defining Accuracy:** Establishing clear, agreed-upon definitions.

[6] See Final Issue Report on a Next-Generation gTLD Registration Directory Service (RDS) to replace WHOIS. https://archive.icann.org/en/whois/ars-assets/final-issue-report-next-generation-rds-07oct15-en.pdf
[7] See SAC058: SSAC Report on Domain Name Registration Data Validation, https://itp.cdn.icann.org/en/files/security-and-stability-advisory-committee-ssac-reports/sac-058-en.pdf
[8] See ICANN, GDPR, and the WHOIS: A Users Survey - Three Years Later, https://www.m3aawg.org/sites/default/files/m3aawg_apwg_whois_user_survey_report_2021.pdf
[9] See Reputation Block Lists: Protecting Users Everywhere, 1 November 2017, https://www.icann.org/en/blogs/details/reputation-block-lists-protecting-users-everywhere-1-11-2017-en

- **Achieving Accuracy:** Ensuring a sufficient level of data accuracy.
- **Measuring Benefits:** Defining and measuring the concrete benefits of improved accuracy to justify potential commercial burdens.

Addressing these underlying challenges effectively will require the GNSO to find answers to several critical questions. SSAC proposes the problem statement include answering the following questions:

- **Definitions & Standards:** What constitutes "accuracy," and under what rules or regulations?
- **Measurement & Assessment:** How will data accuracy be measured and compliance be assessed?[10]
- **NIS2:** The Network and Information Security 2 (NIS2) directive from the European Union contains accuracy requirements for registrars and registry operators. What implications, if any, does NIS2 have for ICANN policy-making?

Answering these questions will be crucial for the GNSO as it considers what work to undertake that supports the ongoing integrity and security of the domain name system.

3 Acknowledgments, Disclosures of Interest, and Withdrawals

In the interest of transparency, these sections provide the reader with information about aspects of the SSAC process. The Acknowledgements section lists the SSAC members, outside experts, and ICANN staff who co-authored or contributed directly to this particular document or who provided reviews. The Disclosures of Interest section points to the biographies of all SSAC members, which disclose any interests that might represent a conflict—real, apparent, or potential—with a member's participation in the preparation of this report. The Withdrawals section identifies individuals who have recused themselves from the discussion of the topic with which this report is concerned. Except for members listed in the Withdrawals section, this document has the consensus approval of all of the members of SSAC.

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Greg Aaron
Joe Abley
Steve Crocker
Jothan Frakes

[10] It is estimated that about 90% of gTLD registrant data is either redacted or under proxy protection. Since it is not publicly available, how can that data be evaluated? See Interisle Consulting Group, "Domain Name Contact Data Availability and Registrant Classification Study." 4 June 2024. https://www.dnib.com/articles/interisle-report-examines-domain-name-contact-data-availability

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3.2 Disclosures of Interest

SSAC member biographical information and Disclosures of Interest at the time of publication are available at: https://www.icann.org/en/ssac/members/archive/16-05-2025.

3.3 Withdrawals

KC Claffy