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ANNUAL
GENERAL
MEETING

Joint GNSO Council and SSAC Meeting



Agenda

- Updates from the SSAC
- Current SSAC reports of interest to the GNSO
 - SAC126: SSAC Report on Delegation Signer Automation
 - SAC125: SSAC Report on Registrar Nameserver Management
- SSAC Outreach Activities and Opportunities for Collaboration

A Year of Progress and Openness at the SSAC

- **3 impactful reports** this year: DNS Security Extensions (DNSSEC) Automation, Name Collision Analysis, and Registrar Nameserver Management.
- **9 new SSAC members** with diverse backgrounds
- **Open SSAC meetings at ICANN**
- **SSAC workshop opened to community** on AI and DNS abuse, quantum computing, DNS and blockchain



SSAC: 2024 November



Six Strategic Goals for SSAC 2024-2026

-  **1 Enhance Quality and Relevance of SSAC Advice**
-  **2 Boost Engagement of Existing Members**
-  **3 Streamline Work Process and Timely Report Generation**
-  **4 Strengthen SSAC's Voice on Crucial Topics**
-  **5 Support Members' Expertise Expansion and Amplification**
-  **6 Enhance Diversity of SSAC Membership**



5 Topics: The SSAC As An Authority

Intent

SSAC as
an
authority
on key
topics in
ICANN

1

DNS Abuse

The most significant security issue facing our community.

2

New gTLDs

One of the largest strategic and tactical priorities for our community.

3

DNSSEC

A significant technology that improves DNS security. Still evolving.

4

Alternative Namespaces

New namespaces should want to integrate with the existing one. What are the issues?

5

Internet Governance & SSR

Add technical heft and provide meaningful advice for policy makers worldwide.

Insights from SAC126: SSAC Report on DNSSEC Delegation Signer (DS) Automation

Peter Thomassen

Motivation: Registrant-centric Approach

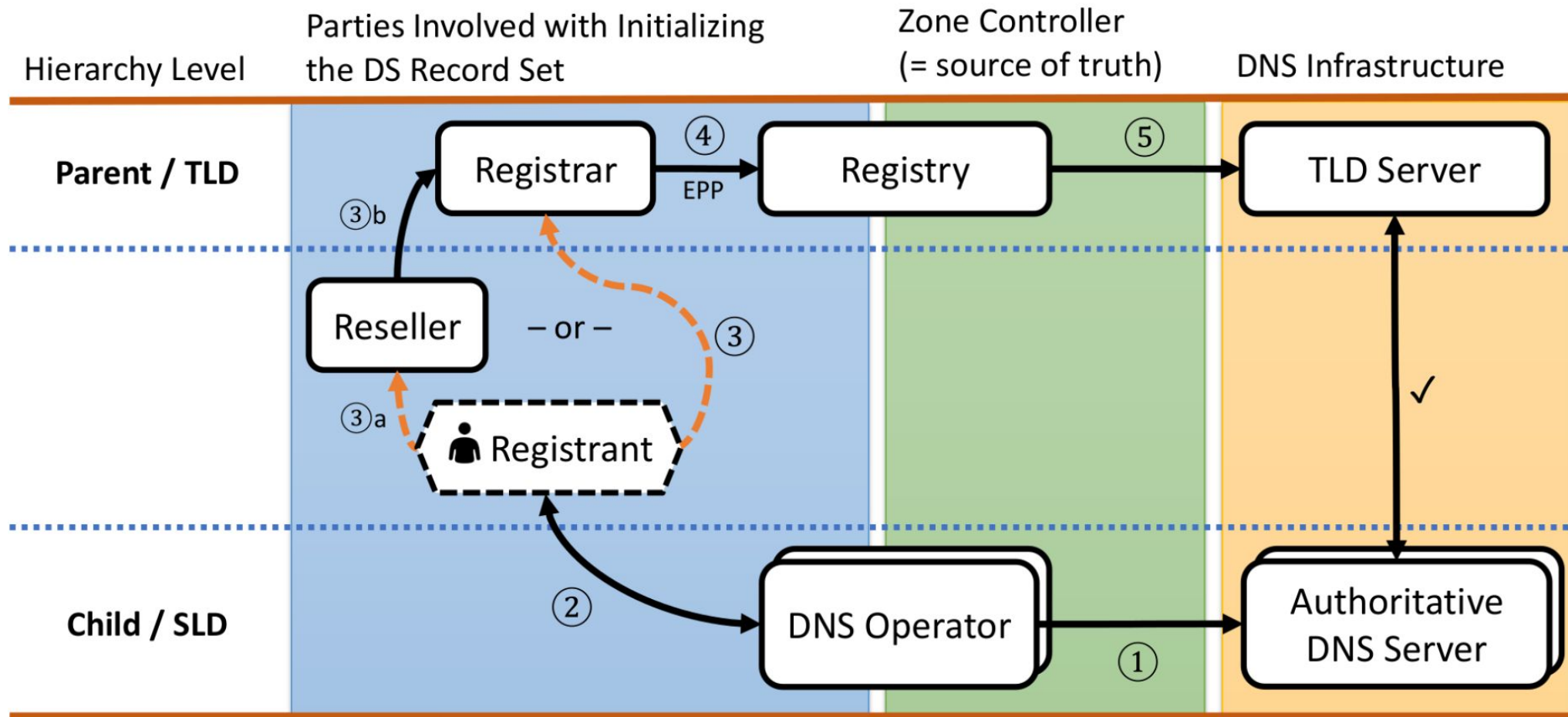


Figure 2. Entities and their relationships during DS provisioning.

- **Registries and registrars play a critical role in the DNSSEC ecosystem**
 - Their internal DNSSEC operations are mostly automated today
- **However, users desiring DNSSEC are mostly left with manual DS record provisioning and management**
 - Especially when the child uses a third-party DNS service
- **Current Registrant-centric approach to DS management introduces significant complexity, idiosyncratic interfaces, and chance for error**
- **Management of DS record sets should occur in a smooth, efficient, and faultless fashion**
 - DS management automation can contribute to this goal

Automated DS Management: Recommendations from SAC126

1. If a registry or a registrar wishes to implement DS automation for third-party DNSSEC operations, the current recommended interoperable mechanism is CDS/CDNSKEY (RFCs 7344, 9615). This mechanism has limitations as described in this document but has been deployed and there is operational experience in using it.
2. ICANN Org should support registries and registrars who want to implement DS automation using the mechanisms from Recommendation 1, such as by facilitating a Fast-Track RSEP.
3. ICANN org should facilitate the development of operational guidance for registries and registrars around the implementation of DS automation, in particular the operational aspects outlined in the report.

Insights from SAC125: SSAC Report on Registrar Nameserver (NS) Management

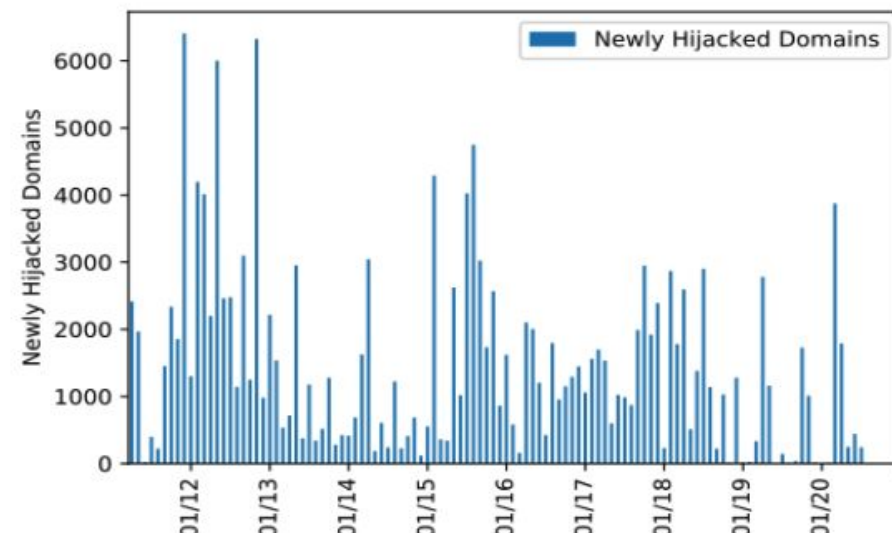
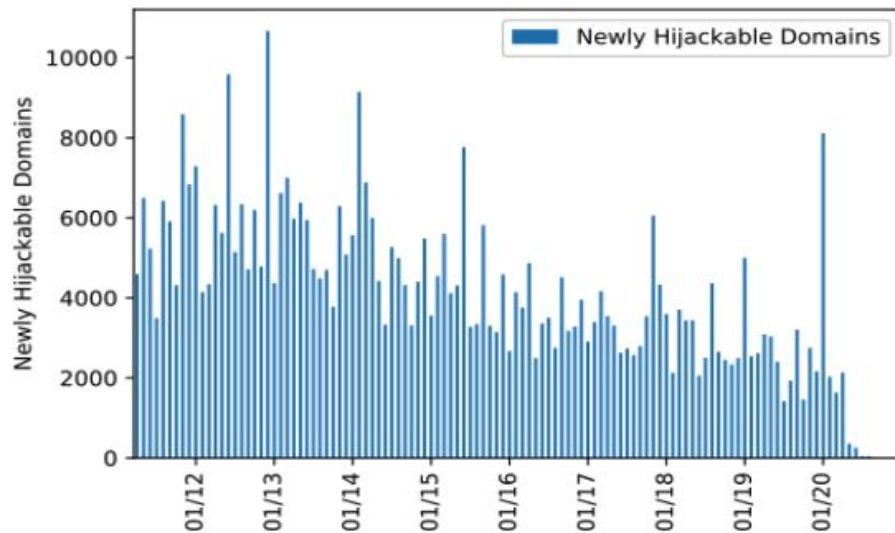
Ram Mohan

SAC125 - Problem Statement

- When a domain name registration expires, the domain cannot be deleted if other domains depend on it.
- A combination of Extensible Provisioning Protocol (EPP) advice and registry policies often prevents the simple deletion of a domain with subordinate host objects referenced by other domains **in the same registry**.
- Some registrars have been bypassing these restrictions by **renaming** subordinate host objects (outside of the registry), thus allowing removal of the expired domain.
- Renaming host objects can create **unsafe sacrificial name servers**.
- Malicious actors can register sacrificial name servers and take control of dependent domains.

SAC125 - Scale of the Issue

- SAC125 built on the risks identified in the paper ***Risky BIZness: Risks Derived from Registrar Name Management.***
- Between 2011 and 2020, nearly half a million domains were made vulnerable due to unsafe sacrificial name servers.
- Of these domains, nearly a third were resolution-hijacked.



Registrar NS Management - Recommendations

1. ICANN registry and registrar communities collaborate to develop and implement a comprehensive code of conduct to mitigate the risks associated with registrable sacrificial nameservers.
2. ICANN org design, develop, and regularly publish aggregated statistics specifically focused on the prevalence of unsafe sacrificial nameservers and the effectiveness of different mitigation measures.
3. ICANN org directly engage with registries and registrars to assist in mitigation and prevention efforts based on the insights gleaned as a result of implementing Recommendation 2.

SSAC Outreach Activities

Ram Mohan

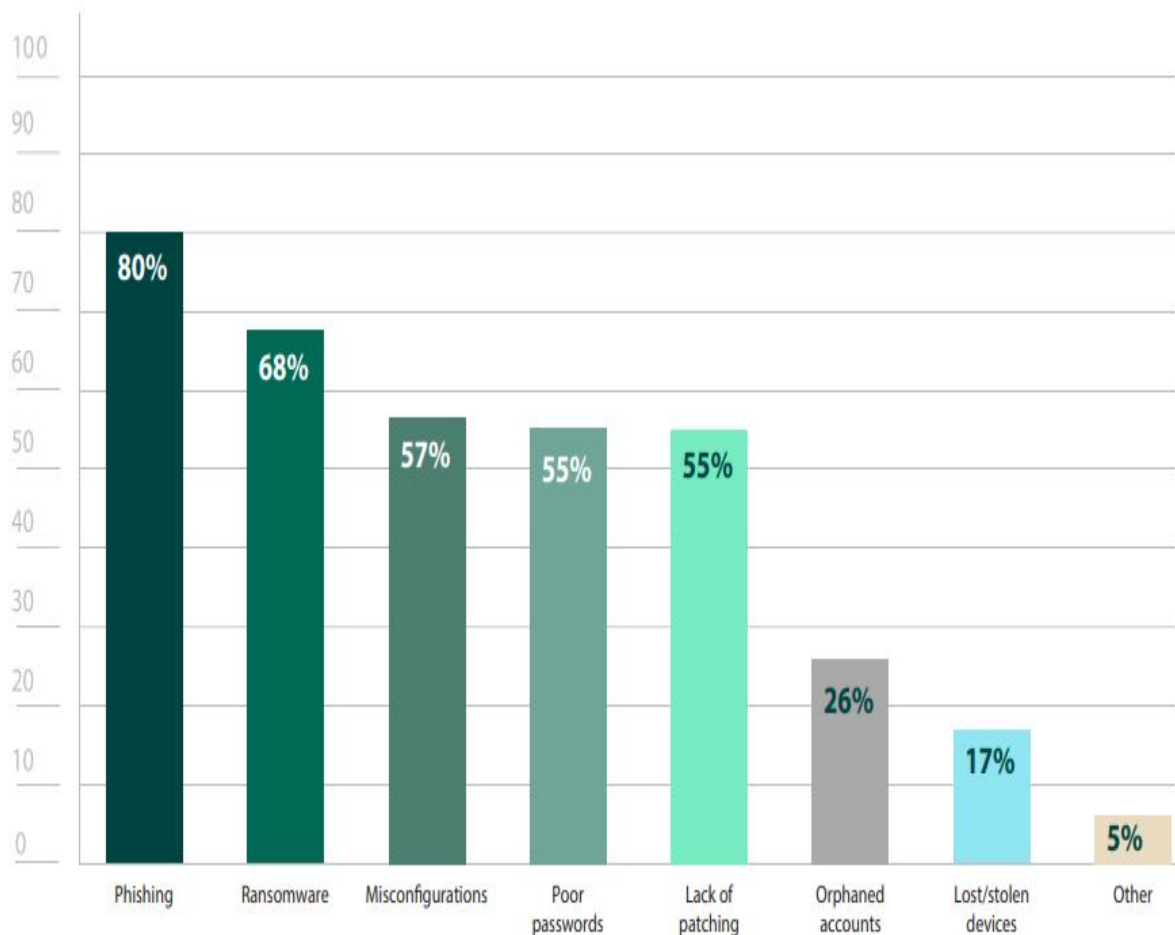
SSAC: A Voice for the Community

- Our meetings are now open by default
- Improving SSAC's voice in the community
 - ALAC
 - GAC/PSWG
 - GNSO
 - ccNSO
- SSAC's messaging and public-facing work
 - Public sessions on important security topics
 - Blogs
 - Videos
 - Accessible reports
- Technical expertise to offer objective advice to the community

Cybersecurity Is Infrastructure

Common Security Concerns

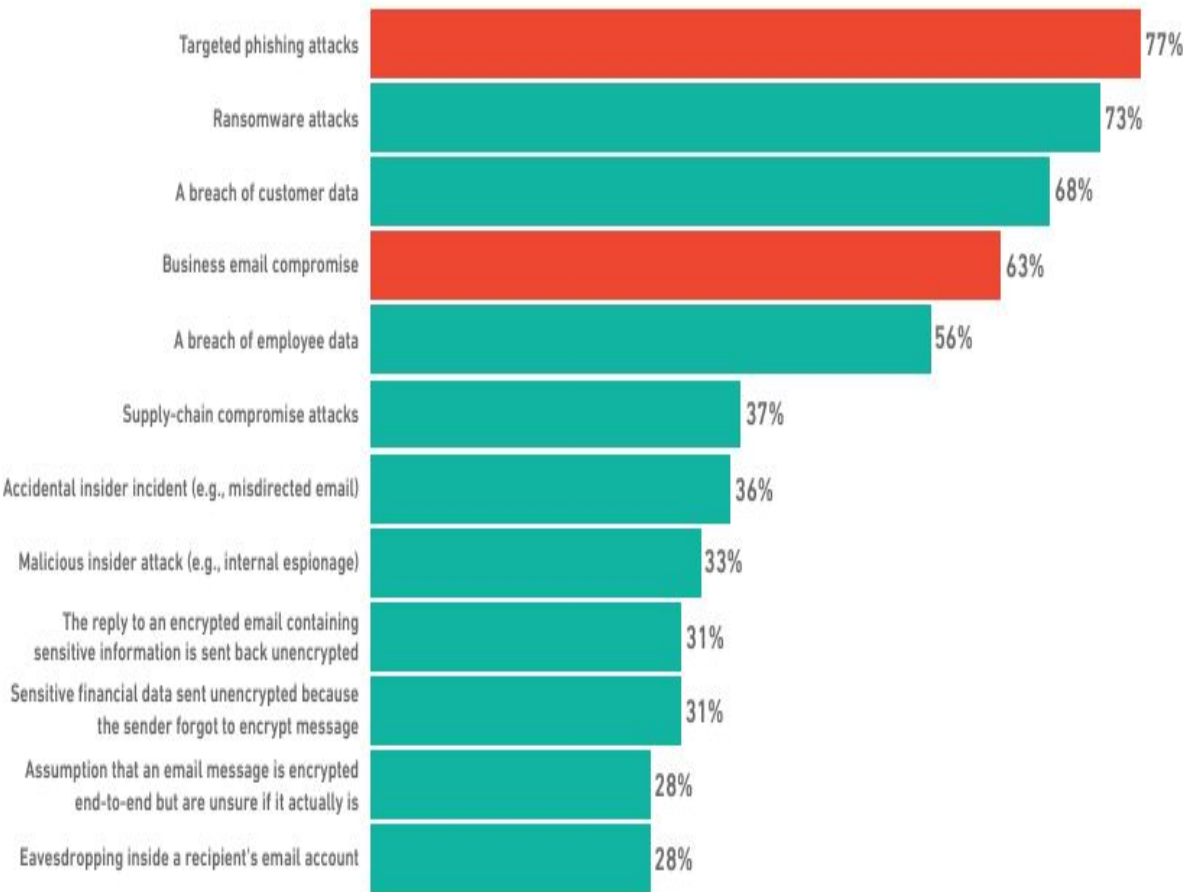
What common security risks/entry points are you most concerned about?



<https://terranovasecurity.com/wp-content/uploads/2022/12/phishing-stats.png>

Level of Concern About Types of Cyberattacks

Percentage of respondents indicating "concerned" or "extremely concerned"



*How to Deal with Business Email Compromise, Osterman Research, Sponsored by SonicWall, January 2022

<https://www.sonicwall.com/medialibrary/en/white-paper/2022-sonicwall-cyber-threat-report.pdf>

Safer Cyber Campaign with the ALAC

- **Shared values:** keep the DNS secure and stable for end users
- **Opportunity:** Build an effective collaboration between the SSAC and ALAC to reach diverse audiences
- **Focus:** curate and disseminate the most impactful DNS security information
- **Considerations:**
 - ➔ Identification of the primary and secondary audiences to prioritize
 - ➔ Identification of most effective regional informational campaign methods
 - ➔ Consideration of regional contexts

How can we collaborate with the GNSO?

SSAC Key Topics of Interest

1. DNS Abuse
2. New gTLDs
3. DNSSEC
4. Alternative Namespaces
5. Internet Governance & SSR

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Security and Stability Advisory Committee