SSAC Activities Update

Rod Rasmussen, SSAC Chair | ICANN63 | October 2018

Agenda

1 SSAC Overview

2 SAC102: SSAC Comment on the Updated Plan For Continuing the Root KSK Rollover

3 SAC103: SSAC Response to the new gTLD Subsequent Procedures PDP Initial Report

4 Update on SSAC Review

5 Other Publications

6 Community Interaction

Security and Stability Advisory Committee (SSAC)

Who We Are

- **39** Members

- Appointed by the ICANN Board

What We Do

Role: Advise the ICANN community and Board on matters relating to the security and integrity of the Internet's naming and address allocation systems.

What is Our Expertise

- Addressing and Routing
- Domain Name System (DNS)
- DNS Security Extensions (DNSSEC)
- Domain Registry/Registrar Operations
- DNS Abuse & Cybercrime
- Internationalization (Domain Names and Data)
- Internet Service/Access Provider
- ICANN Policy and Operations

How We Advise
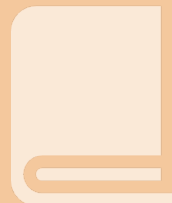
103 Publications since 2002

Security and Stability Advisory Committee (SSAC)

ICANN's Mission & Commitments

◉ To ensure the stable and secure operation of the Internet's unique identifier systems.

◉ Preserving and enhancing the operational stability, reliability, security and global interoperability, resilience, and openness of the DNS and the Internet.

SSAC Publication Process

Form Work Party → Research and Writing

↓

Publish ← Review and Approve
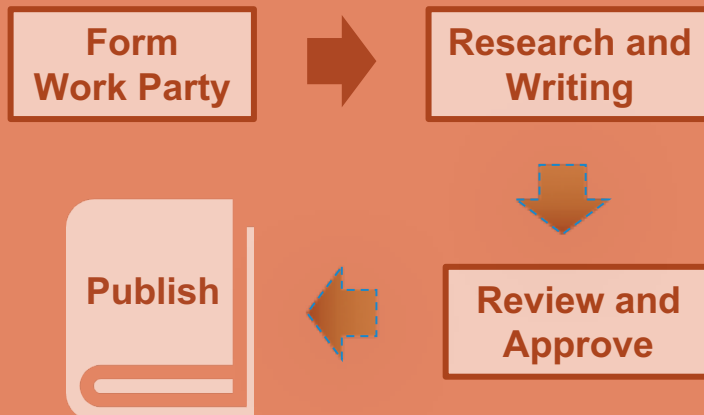
Consideration of SSAC Advice

(to the ICANN Board)

SSAC Submits Advice to ICANN Board

↓

Board Acknowledges & Studies the Advice

↓

Board Takes Formal Action on the Advice

1. Policy Development Process

2. Staff Implementation with Public Consultation

3. Dissemination of Advice to Affected Parties

4. Chose different solutions (explain why advice is not followed)

Security and Stability Advisory Committee (SSAC)

Recent Publications

[SAC103]: SSAC Response to the new gTLD Subsequent Procedures PDP WG Initial Report (3 October 2018)

[SAC102]: SSAC Comment on the Updated Plan for Continuing the Root KSK Rollover (20 August 2018)

[SAC101]: SSAC Advisory Regarding Access to Domain Name Registration Data (18 June 2018)

[SSAC2018-16]: Draft Assessment Report of the Independent Examiner (13 June 2018)

[SSAC2018-15]: Review of IDN Implementation Guidelines (11 June 2018)

I C A N N | S S A C

Security and Stability Advisory Committee

Outreach

🌐 ssac.icann.org and SSAC Intro: www.icann.org/news/multimedia/621

f www.facebook.com/pages/SSAC/432173130235645

▶ SAC067 SSAC Advisory on Maintaining the Security and Stability of the IANA Functions Through the Stewardship Transition and SAC068 SSAC Report on the IANA Functions Contract: www.icann.org/news/multimedia/729

SSAC Leadership Change

Ram Mohan completes his service as liaison to the ICANN Board (2008 - 2018)

Merike Kaeo starts a 3-year term representing the SSAC as liaison to the ICANN Board

Current Work in Progress

- Name Collision Analysis Project

- SSAC Organizational Review

- Internet of Things

- Emerging Security Topics (Ongoing)

- DNSSEC Workshops (Ongoing)

- Membership Committee (Ongoing)

Topics of Interest/Possible New Work

- Improving SSAC working processes

- DNS Privacy, DNS over HTTP, DNS over TLS

- Pros and cons of hyper local root / RFC 7706

- DNSSEC DS key management and other registrar/registry control issues

- Best practices for handling take-down procedures

- Security issues specific to specialized TLDs

- Studying abuse in nTLDs

SAC102: SSAC Comment on the Updated Plan For Continuing the Root KSK Rollover

Russ Mundy

ICANN Board Request for Advice

- May 2018: The ICANN Board asked RSSAC, SSAC and RZERC to provide advice on the updated plan

- The Board asked for advice on the updated plan, not on whether ICANN Org should roll the key

- All three advisory committees responded

- The Board decided to continue with the plan in its workshop September 14-16

- The key was rolled on 11 October 2018

SSAC Response - SAC102

- ◉ Consensus opinion

    - ○ Did not identify any reason within the SSAC's scope why the rollover should not proceed as currently planned

    - ○ Suggests that ICANN establish a framework for scheduling further rolls of the root KSK based on analysis of the outcomes of the initial KSK roll

    - ○ The assessment of risk in this particular area has some uncertainty and therefore includes a component of subjective judgement. The decision as to what level of risk is acceptable remains one for the ICANN Board to assess.

SSAC Response - SAC102

- Dissents from the consensus

  - Evaluated the tradeoff differently and believed that the risk of rolling in accordance with the current schedule was larger than the risk of postponing

  - Recommended focus on additional research and outreach

- Dissent on SSAC documents has many precedents, is encouraged, and is considered healthy for discussions of complex SSR issues.

- SSAC documents reflect the overall consensus of the SSAC, and include any dissents so that the recipients of our recommendations and the entire community receives the full range of ideas and issues to consider.

SAC103: SSAC Response to the new gTLD Subsequent Procedures PDP Working Group Initial Report

Rod Rasmussen

- Concerned that the PDP is moving too quickly
  - CCT Review Final Report includes substantial recommendations to improve SSR and needs to be taken into account
  - Issues from 2012 round need to be resolved

- SSAC provides comments on the following areas
  - Reserved Names and String Similarity
  - Internationalized Domain Names
  - Root Scaling
  - Name Collisions
  - Evaluating Providers
  - Domain Name Abuse (not covered in the initial report)

Internet of Things WP

Cristian Hesselman

DNS in the IoT: Opportunities and Potential Risks

- ⊙ "Strategic advisory" (forward looking)

- ⊙ Goals

  - ○ Raise awareness of DNS' role in the IoT (community and board)

  - ○ Suggest actions to seize opportunities and mitigate risks (board)

- ⊙ Next steps

  - ○ Finish draft document (ICANN63)

  - ○ Share with SSAC and receive feedback (Nov)

  - ○ Revise document and publish (Dec)

Name Collision Analysis Project

Jay Daley

Name Collision Analysis Project Update

- ◉ ICANN Board tasks SSAC to conduct studies to present data, analysis and points of view, and provide advice to the Board
  - ○ A proper definition for name collision
  - ○ Suggested criteria for determining whether an undelegated string should be considered a string that manifests name collisions, i.e., is a "collision string"
  - ○ Suggested criteria for determining whether a Collision String should not be delegated
  - ○ Suggested criteria for determining how to remove an undelegated string from the list of "Collision Strings" (aka mitigations)
- ◉ Studies to be conducted in a thorough and inclusive manner that includes other technical experts

Name Collision Analysis Project Update

- March 2018: First draft project plan submitted for public comment

- October 2018: SSAC produced a revised project plan, now under consideration by the Board Technical Committee (BTC)
  - Refined study tasks
  - Revised financial estimates
  - Revised project management structure

- Next step: BTC reviews the SSAC proposal and make recommendations to the Board

Update on Second Organizational Review of the SSAC

Lyman Chapin

Second Organizational Review of SSAC

- February 2018: ICANN selected Analysis Group to conduct review of the SSAC

- March - May 2018: Independent Examiner started review of SSAC through interviews and surveys

- June 2018 - Assessment report published for comment
  - https://www.icann.org/news/announcement-2018-06-21-en

- October 15 2018 - Final Report (with recommendations) published for public comment
  - https://www.icann.org/public-comments/ssac-review-final-2018-10-15-en

- SSAC Review Work Party will draft the feasibility assessment and initial implementation plan for Board's consideration

Other Publications

Julie Hammer

Recent Publications

- [SSAC2018-19]: SSAC Comment on Long-Term Options to Adjust the Timeline of Reviews (24 July 2018)

  - Supports the development of detailed changes to the ICANN Bylaws to capture a set of principles on reviews

- [SSAC2018-18]: SSAC Comment on Short-Term Options to Adjust the Timeline for Specific Reviews (24 July 2018)

Recent Publications

- [SSAC2018-25]: SSAC Approval of the CCWG-Accountability-WS2 Final Report (3 October 2018)
  - As a chartering organization, the SSAC approves the CCWG Accountability Work Stream 2 final report.

Questions to the Community

- ⊙ What topics would you like SSAC to consider as work items?

- ⊙ What would you like SSAC to comment on?

Thank you

Backup Slides

Current and Future Milestones

Q3 2018 **Q4 2018**

- ✓ **[SAC103]: SSAC Response to the new gTLD Subsequent Procedures PDP WG Initial Report (3 October 2018)**
- ✓ **[SAC102]: SSAC Comment on the Updated Plan for Continuing the Root KSK Rollover (20 August 2018)**
- ✓ **[SSAC2018-25]: SSAC Approval of the CCWG-Accountability-WS2 Final Report (3 October 2018)**
- ✓ **[SSAC2018-22]: Input to EPDP Team (24 August 2018)**
- ✓ **[SSAC2018-19]: SSAC Comment on Long-Term Options to Adjust the Timeline of Reviews (24 July 2018)**
- ✓ **[SSAC2018-18]: SSAC Comment on Short-Term Options to Adjust the Timeline for Specific Reviews (24 July 2018)**

- ◉ SSAC Organizational Review
- ◉ Possible Advisory on Internet of Things
- ◉ Continued work on Name Collision Analysis
- ◉ Emerging Security Topics (Ongoing)
- ◉ DNSSEC Workshops (Ongoing)
- ◉ Membership Committee (Ongoing)