SSAC Activity Report
March 2013

What is the SSAC?

The Security and Stability Advisory Committee (SSAC) advises the ICANN community and Board of Directors on matters relating to the security and integrity of the Internet's naming and address allocation systems. This includes operational matters (e.g., matters pertaining to the correct and reliable operation of the root name system), administrative matters (e.g., matters pertaining to address allocation and Internet number assignment), and registration matters (e.g., matters pertaining to registry and registrar services). The 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. See the SSAC Charter at http://www.icann.org/en/groups/ssac/charter for additional information.

Introduction

This **Activity Report** is divided into the following sections: **Work Plan for 2013** and **Work Completed in 2013**.

The first section, **Work Plan for 2013**, presents the ideas and preliminary work to develop specific project plans. This is perhaps the most important section of this report because it provides notice of issues on the horizon. The Work Plan may include activities that have been carried over from the previous year.

The SSAC generates three types of work products: reports, advisories and comments. Reports examine a topic in substantial detail. Advisories are issued in response to a problem or incident in a timely manner. Comments are usually responses to queries from staff or to ICANN documents posted for formal response. SSAC reports, advisories and comments are generally available for distribution to the community. Those work products that were produced in 2012 are described in the **Work Completed in 2013** section. For a list of SSAC documents see: http://www.icann.org/en/groups/ssac/documents. For previous Work Plans and Activities see: http://www.icann.org/en/groups/ssac/workplan-activities.

The SSAC often considers security incidents or matters disclosed in confidence to committee members (e.g., a security vulnerability, an emerging threat to the Domain Name System (DNS), or information relating to a security incident). Discussions and ongoing work within the SSAC are thus typically conducted in private until complete, or until the need for confidentiality has lapsed. For information on the operation of the SSAC, see the SSAC Operational Procedures at http://www.icann.org/en/groups/ssac/operational-procedures-18jan13-en.pdf. SSAC members participate in an individual capacity and do not represent the organizations that employ them. SSAC member biographies and statements of interest are posted here: http://www.icann.org/en/groups/ssac/biographies-01feb13-en.htm.

Feedback on this content, process, and format is welcome. Full information on the Committee and its completed reports is on the ICANN web site at http://ssac.icann.org/. This report is suitable for general distribution and will also be available on the SSAC web site.

Patrik Fältström,

Chair, Security and Stability Advisory Committee

Work Plan for 2013

Work Parties/Working Groups/Activities:

Membership Committee: The SSAC has a Membership Committee, Chaired by the Vice Chair of the SSAC, Jim Galvin, which evaluates nominations for membership and oversees the annual member review process. For further information on membership and the activities of the Membership Committee, see the SSAC Operational Procedures at http://www.icann.org/en/groups/ssac/operational-procedures-18jan13-en.pdf.

Root Key Rollover Work Party: This Work Party is studying possible security and stability issues relating to changing the cryptographic key for the Domain Name System (DNS) Security Extensions (DNSSEC) of the root. (DNSSEC is a set of protocols designed to address security issues with the DNS system.)

Identifier Abuse Metrics Work Party: This Work Party is conducting research on the abuse of Internet identifiers. It is producing a survey to assist in gathering data.

Abuse of the DNS for DDoS Attacks/SAC004/SAC008: This Work Party is aimed at raising awareness of current ongoing issues where the DNS infrastructure is used to create Distributed Denial of Service (DDoS) attacks that as a result impact overall Internet security and stability. It augments the previous SSAC work of SAC004: Securing the Edge (17 October 2002) http://www.icann.org/en/groups/ssac/documents/sac-004-en.pdf and SASC008: DNS Distributed Denial of Service (DDoS) Attacks (31 March 2006) http://www.icann.org/en/groups/ssac/dns-ddos-advisory-31mar06-en.pdf.

Internet Governance Forum (IGF) Panel: This Work Party is preparing a panel discussion for the IGF meeting in Bali, Indonesia in October 2013. The working title of the current Work Party proposal is "Dangers to Internet Economy from Irresponsibility at Scale." For the current description see proposal #234 at http://www.intgovforum.org/cms/view-proposals.

New gTLD Success Metrics: This Work Party is addressing the ICANN Board's Resolution at http://www.icann.org/en/groups/board/documents/resolutions-13sep12-en.htm#1 requesting clarification concerning the SSAC's Recommendation 5 in SAC046: The SSAC Report of the Security and Stability Advisory Committee on Root Scaling (6 December 2010) – see : http://www.icann.org/en/groups/ssac/documents/sac-046-en.pdf. The Work Party also may address further issues relating to new gTLD success metrics.

Planned Activities: The SSAC is considering activities on the following topics: Complexity/challenges in the DNS and expansion of the name space; administrative boundaries in the DNS; DNSSEC validation.

Public Meetings and Collaboration:

SSAC Public Meetings at ICANN Meetings in 2013 – The SSAC will hold public meetings at the ICANN meetings in 2013 in Beijing, China, in April, see: http://beijing46.icann.org/node/37183; Durban, South Africa in July; and Buenos Aries, Argentina in November.

Workshops on DNSSEC at ICANN Meetings in 2013 – The SSAC will hold DNSSEC Workshops at the ICANN meetings in 2013 in Beijing, China, in April, see http://beijing46.icann.org/node/37125; Durban, South Africa in July; and Buenos Aries, Argentina in November. These workshops provide a forum for both experienced and new people to meet, present and discuss current and future DNSSEC deployment issues. There also will be separate sessions that provided an introduction to DNSSEC basics intended for people who are not yet familiar with DNSSEC in Beijing, China, in April, see http://beijing46.icann.org/node/37065; Durban, South Africa in July; and Buenos Aries, Argentina in November.

Outcomes/Collaboration on SSAC Work -- SSAC publications directly inform the work of the community. For example, in a document published in March 2013 -- SAC057: SSAC Advisory on Internal Name Certificates (see next page) -- the SSAC identified a Certificate Authority (CA) practice that, if widely exploited, could pose a significant risk to the privacy and integrity of secure Internet communications. Following the SSAC advice, ICANN and CA/Browser forum took immediate mitigation actions to reduce the risk as follows:

- ICANN alerted the CA/Browser (CA/B) Forum Chairperson (23 Jan 2013)
- ICANN briefed the CA/B Forum at its annual meeting (5 Feb 2013)
- Ballot 96 on new gTLDs was brought forward and passed by the CA/B Forum (20 Feb 2013), which implies:
  - CAs will stop issuing certificates that end in an applied-for-gTLD string within 30 days of ICANN signing the contract with the registry operator.
  - CAs will revoke any existing certificates within 120 days of ICANN signing the contract with the registry operator.

Work Completed in 2013

[SAC057]: SSAC Advisory on Internal Name Certificates

See: http://www.icann.org/en/groups/ssac/documents/sac-057-en.pdf. The SSAC has published SAC057: SSAC Advisory on Internal Name Certificates. This advisory identified a Certificate Authority (CA) practice that, if widely exploited, could pose a significant risk to the privacy and integrity of secure Internet communications. This CA practice could impact the new gTLD program. The SSAC thus advises ICANN take immediate steps to mitigate the risks. Following the SSAC advice, ICANN took immediate mitigation actions to reduce the risk. These actions are included in appendix A of the SSAC report.

[SAC058]: SSAC Report on Domain Name Registration Data Validation Taxonomy

See: http://www.icann.org/en/groups/ssac/documents/sac-058-en.pdf. The SSAC has published SAC058: SSAC Report on Domain Name Registration Data Validation Taxonomy. In this report, the SSAC examines the feasibility and suitability of improving registration data accuracy through validation. Specifically, the SSAC:

- Proposes validation taxonomy for community consideration; and
- Explores the suitability and efficacy of various techniques of validating registration data elements in light of the taxonomy.

Finally, based on the taxonomy and suitability and feasibility of implementing validations, the SSAC provides recommendations for the ICANN community to consider.

SSAC Comment on Community Travel Support Guidelines

See: http://forum.icann.org/lists/comments-travel-support-07mar13/msg00001.html. The SSAC submitted a comment to the public forum on the Community Travel Guidelines at http://www.icann.org/en/news/public-comment/travel-support-07mar13-en.htm. After reviewing the Guidelines, the SSAC brought to ICANN's attention an inconsistency in the document. In particular, the SSAC noted that since all groups will be expected to follow the Travel Support Guidelines, the SSAC suggests that the descriptions should be consistent and contain the same information, highlighting any exceptions that may exist.