SSAC Activity Report
March 2012

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 for additional information.

Introduction

This **Activity Report** is divided into the following sections: **Work Plan for 2012** and **Work Completed in 2012**.

The first section, **Work Plan for 2012**, 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 2012** 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. 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-31jan12-en.htm.

Feedback on this content, process, and format are welcome. Full information on the Committee and its completed reports is on the ICANN web site at 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 2012

Work Parties:

Internationalized Registration Data Working Group (IRD-WG) – SSAC members are participating in a joint Generic Names Supporting Organization (GNSO)-SSAC Working Group to study the feasibility and suitability of introducing response and display specifications to accommodate registration data that cannot be represented using US-ASCII. The IRD-WG published a Draft Final Report for comment in the Public Forum on 03 October 2011 and is preparing a Final Report to submit to the Generic Names Supporting Organization (GNSO) and the SSAC.

Domain Name System (DNS) Security and Stability Analysis Working Group (DSSA-WG) – SSAC members are participating in this joint Working Group established by the GNSO, Country Code Supporting Organization (ccNSO), and the At-Large Advisory Committee (ALAC). The Working Group is identifying and Analyzing threats and vulnerabilities to the DNS. For more information see:
https://community.icann.org/display/AW/Joint+DNS+Security+and+Stability+Analysis+Working+Group.

Impact of DNS Blocking – The Work Party is gathering data on DNS filtering that may be occurring outside of the United States as a follow up to [SAC050]: DNS Blocking: Benefits Versus Harms.

Root Key Rollover – The 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 set of protocols designed to address security issues with the DNS system.)

Other Work Parties Identified for Future Work: The SSAC has identified the following topics for possible future Work Parties: Public interest (No Fee) Domain Holding Pen, Security and Stability Issues Relating to New gTLDs, and the deployment of IPv6 in addition to IPv4.

Public Meetings and Collaboration:

The SSAC holds public meetings, workshops, and meets with the ICANN Advisory Committees, Supporting Organizations, and other groups during the three ICANN meetings each year.

SSAC Public Meetings at ICANN Meetings in 2012 – The SSAC will hold public meetings at the ICANN meetings in San José, Costa Rica in March, Prague, Czech Republic in June, and Toronto, Canada in October. At these meetings the SSAC provided briefings on recently published and ongoing work.

Workshops on DNSSEC at ICANN Meetings in 2012 – The SSAC will hold DNSSEC Workshops in coordination with the DNSSEC Deployment Initiative at the ICANN meetings in San José, Costa Rica in March, Prague, Czech Republic in June, and Toronto, Canada in October. These workshops provide a forum for both experienced and new people to meet, present and discuss current and future DNSSEC deployment issues. There also is a separate session that provides an introduction to DNSSEC basics intended for people who are not yet familiar with DNSSEC.

Collaboration with the ICANN and on Global Security Issues -- SSAC members are carrying forward work from various SSAC deliverables (SAC026, SAC033, SAC038, SAC040, SAC044, SAC049, and SAC050) into the GNSO through outreach efforts and via participation in various Working Groups. SSAC work products also are being considered by staff at GNSO request, including an inventory of WHOIS service requirements. SAC037 is the catalyst and basis for work on internationalizing registration data. See above. SAC044 has been singled out by the GNSO as an important report for registrars to make available to customers. In addition, many SSAC members collaborate on global security issues in the community at large. The SSAC also will hold regular meetings with members of the law enforcement community, beginning at the ICANN meeting in Costa Rica in March.

Collaboration with Affirmation of Commitment Review Teams – The SSAC holds informal meetings with two of the Review Teams formed as part of the Affirmation of Commitment: 1) The WHOIS Review Team and 2) the Security, Stability, and Resiliency of the DNS Review Team.

Work Completed in 2012

[SAC052]: SSAC Advisory on Single-Character Internationalized Domain Name Top-Level Domains (31 January 2012) – This advisory is the SSAC's response to the ICANN Board's request for advice concerning the security and stability impact of delegating single-character international domain name (IDN) top-level domains (TLDs). The advisory is divided into two parts. The first part summarizes three key findings related to the delegation of single-character IDN TLDs. The second part offers specific recommendations for the Board to consider.

[SAC053]: SSAC Report on Dotless Domains (23 February 2012) – The report notes that the new generic TLD (gTLD) program could introduce a significant number of new top-level domain names to the DNS. This prospect has generated considerable interest, and sometimes confusion, in how top-level names can be used. A frequently asked question is: *If I register "dot BRAND", will I be able to use the label "BRAND" alone in a URL or an email address? What will happen if I do?* In its report the SSAC calls a domain name that consists of a single label a *dotless domain*. Applicants for new gTLDs who ask the question posed above want to know whether or not a dotless domain would be handled by Internet infrastructure and applications in the same way as other domain names. In this report, the SSAC finds that dotless domains would not always work as expected given current DNS implementation and existing application behavior. In particular, it finds that the way in which domain names are interpreted in different contexts would lead to unpredictable and unexpected dotless domain behavior.