



SSAC Activity Report December 2011

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.

Introduction

This **Activity Report** is divided into the following sections: **Work Plan for 2011** and **Work Completed in 2011**.

The first section, **Work Plan for 2011**, 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 2011 are described in the **Work Completed in 2011** section. For a list of SSAC documents see: <http://www.icann.org/en/committees/security/ssac-documents.htm>. For previous Work Plans and Activities see: <http://www.icann.org/en/committees/security/ssac-workplan.htm>.

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. 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/committees/security/biographies-27jun11-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 <http://www.icann.org/en/committees/security/>. 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 2011

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 summary and analysis of comments.

Single Character TLDs – The ICANN Joint ccNSO-GNSO IDN Working Group (JIG), in its report to the ICANN Board, recommended that single-character TLDs be accepted in the IDN ccTLDs and the New gTLD Program. The ICANN Board of Directors requested technical and policy advice from the SSAC, the Governmental Advisory Committee (GAC), and the At-Large Advisory Committee (ALAC). The Work Party is considering the SSAC's response to the Board on the security and stability aspects of delegating single character top-level domains.

Dotless Domains – The Work Party is considering the security and stability issues if domain names did not contain a dot (. – as in .com).

Non-US-Centric DNS Filtering – 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 (see below).

WHOIS Data Model – The Work Party is working with the Internet community to develop a WHOIS data model as a follow up to recommendations in the SSAC Report on WHOIS Terminology and Structure (see below).

Measuring Outcomes – This is an ongoing Work Party that is developing metrics and procedures to measure the outcomes of SSAC reports, advisories, and comments.

Orphaned DNS Records – The Work Party may develop possible recommendations in addition to those presented in [SAC048]: SSAC Comment on the Orphan Glue Records in the Draft Applicant Guidebook (see below).

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, New gTLDs, and IPv4 to IPv6 Transition.

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 2011 – The SSAC held public meetings at the ICANN meetings in Silicon Valley, California in March, Singapore in June, and Dakar, Senegal in October. At these meetings the SSAC provided briefings on recently published and ongoing work. (See links below.)

Workshops on DNSSEC at ICANN Meetings in 2011 – The SSAC held DNSSEC Workshops in coordination with the DNSSEC Deployment Initiative at the ICANN meetings in San Francisco, California in March, Singapore in June, and Dakar, Senegal in October. These workshops provide a forum for both experienced and new people to meet, present and discuss current and future DNSSEC deployment issues. A new session has been added that provides an introduction to DNSSEC basics intended for people who are not yet familiar with DNSSEC. (See links below.)

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 Generic Names Supporting Organization (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.

Collaboration with Affirmation of Commitment Review Teams – The SSAC has held 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 2011

[SAC047]: SSAC Comment on the ICANN gTLD Registry Transition Processes Model (15 April 2011):– In conjunction with the anticipated introduction of new generic Top Level Domains (gTLDs) ICANN has published an Explanatory Memorandum to describe a model for the transition of a gTLD from one registry operator to another. The registry transition processes are intended to provide safeguards for registrants in cases where a registry ceases operation or in cases where a registry experiences prolonged technical outages. This SSAC Comment considers each of the circumstances where the transition processes are to be implemented. The Comment asks that ICANN consider testing, retention of operational data from ex-registries, zone data escrow, and other information that will facilitate restoration of name resolution service for registrants.

[SAC048]: SSAC Comment on the Orphan Glue Records in the Draft Applicant Guidebook (12 May 2011): In April 2011, ICANN published a draft guidebook for the new Generic Top Level Domain (gTLD) Applicants (Applicant Guidebook). This SSAC Comment considers a specific issue in the guidebook: the management and removal of orphan glue records. The Comment prepares a definition of orphan glue and recommends it be included for reference in the Applicant Guidebook. It also asks that ICANN considering refining the language of proposed policy regarding orphan glue.

[SAC049]: SSAC Report on DNS Zone Risk Assessment and Management (03 June 2011): This Report discusses circumstances that result in the loss or disruption of domain name resolution that can temporarily eliminate a domain name from the Internet. Without understanding the mechanisms underlying Domain Name System (DNS) operations and understanding the information necessary to construct DNS information, domain name registrants are at risk for long-term service interruptions. The Report provides an overview and background of the domain name registration process and how registration relates to domain name resolution. It considers technical or business circumstances that might result in loss or disruption of domain name resolution. The SSAC represents such circumstances as risks and recommends measures domain name registrants should take to reduce the impact to their businesses or organizations should any such circumstance affect their domain name(s).

[SAC050]: DNS Blocking: Benefits Versus Harms – An Advisory from the Security and Stability Advisory Committee on Blocking of Top Level Domains at the Domain Name System (14 June 2011): This Advisory notes that all technical approaches to DNS blocking, and even more so attempts to circumvent the blocking, will have some impact on the security and/or stability of users and applications, and on the coherency or universal resolvability of the namespace. The Advisory offers four principles that organizations should apply regardless of the blocking mechanism that is used. In addition, the Advisory notes that when these principles are not applied, blocking using the DNS can cause significantly more collateral damage or unintended consequences with no remedy available to affected parties.

[SAC051]: SSAC Report on WHOIS Terminology and Structure (19 September 2011): This Report has two parts: In Section 2, we propose a taxonomy that disambiguates terminology that has been used in discussions related to domain name registration data. In Section 3, we identify features the SSAC believes should be considered in future domain name registration data directory services. Section 4 summarizes four key observations related to the stalled progress on WHOIS thus far, and Section 5 offers recommendations for how to move the conversation forward to fulfill the commitment stated above.

SSAC Public Reports: Work Plan for 2011 (February, June, and September 2011) These reports describe the SSAC Work Plan and work completed for 2011.

SSAC Public Meetings at the ICANN meetings in Silicon Valley, California (March 2011), Singapore (June 2011), and Dakar, Senegal (October 2011).

DNSSEC Workshops at the ICANN meetings in Silicon Valley, California (March 2011), Singapore (June 2011), and Dakar, Senegal (October 2011).