



SSAC Public Report Work Plan for 2011 February 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 such as WHOIS). 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 report, **SSAC Public Report on the Work Plan for 2011**, is divided into the following sections: **Work Plan for 2011** and **Work Completed in 2010**.

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 following 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 2010 are described in the **Work Completed in 2010** 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-31jan11-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/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

SSAC Review: Registry Transition – The objective of ICANN's registry transition program is to protect registrants by ensuring registry services are operational to the greatest extent possible. Transition processes must consider: 1) DNS Resolution; 2) properly signed zone (when DNS Security – DNSSEC – is present); 3) Shared Registry System (SRS), usually via extensible provisioning protocol (EPP); 4) registration data publication service, usually via WHOIS; and 5) Registry Data Escrow. The SSAC has formed a Work Party to study what it means to protect the registrant in a registry transition, what risks are being addressed, and what the priorities are for a transition.

Source Address Validation – Source address validation refers to techniques that are used to verify the origin of Internet Protocol (IP) traffic as it enters the Internet. The purpose of such validation is to thwart impersonation or 'spoofing' at the IP level. Several source address validation techniques have been available for over a decade yet studies have shown that global deployment percentages of these techniques are very low. The SSAC has formed a Work Party to study current trends in using spoofed IP addresses for malicious traffic, determine techniques available for mitigating threats associated with this spoofed IP traffic, and provide recent incidents that would have been mitigated with more widespread source address validation deployment.

Orphaned DNS Records – Orphaned DNS records are name server records that exist in a delegation, but whose parent domain names no longer exist. The issue of concern is that orphaned DNS records can be maliciously abused. The SSAC has formed a Work Party to study this issue and develop possible recommendations.

DNS Zone Risk Analysis – DNS hosting is an important service offered by numerous parties, including ICANN accredited registrars, who often provide authoritative name services for domain names registered by their customers. The SSAC has formed a Work Party to study circumstances where a business, security or other event results in a long-term loss of name service for registrants who rely on their registrar or other external party to host DNS.

Internationalized Registration Data Working Group (IRD-WG) – SSAC members are participating in this joint Generic Names Supporting Organization (GNSO)-SSAC Working Group that is studying the feasibility and suitability of introducing display specifications to deal with the internationalization of registration data. In 2011 the Working Group will conduct outreach briefings on its Interim Report published for public comment. See: <http://gnsso.icann.org/issues/ird/ird-wg-final-report-15nov10-en.pdf> and the public forum announcement at: <http://www.icann.org/en/public-comment/#ird>.

SSAC Public Meetings at ICANN Meetings in 2011 – The SSAC is planning public meetings to be held at the ICANN meetings in San Francisco, California in March; Singapore in June; and in Africa in October. At these meetings the SSAC will provide briefings on recently published and ongoing work.

Workshops on DNSSEC at ICANN Meetings in 2011 – The SSAC is planning DNSSEC Workshops in coordination with the DNSSEC Deployment Initiative to be held at the ICANN meetings in San Francisco, California in March; Singapore in June; and in Africa in October. These workshops have been a part of ICANN meetings for several years and have provided a forum for both experienced and new people to meet, present and discuss current and future DNSSEC deployments. A new session has been added that provides an introduction to DNSSEC basics intended for people who are not yet familiar with DNSSEC.

Collaboration with the ICANN Community – SSAC members are carrying forward work from various SSAC deliverables (SAC026, SAC033, SAC038, SAC040, and SAC044) 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.

Collaboration with Advisory Groups – SSAC support staff are participating in advisory groups tasked with assessing and developing further programs described in two ICANN explanatory memoranda, including the High Security TLD and Zone File Access Advisory Groups. See <http://www.icann.org/en/topics/new-gtlds/hstld-program-en.htm> and <http://www.icann.org/en/topics/new-gtlds/zone-file-access-en.htm>.

Work Completed in 2010

[SAC046]: Report of the Security and Stability Advisory Committee on Root Scaling (6 December 2010) – See: <http://www.icann.org/en/committees/security/sac046.pdf>. ICANN Board of Directors' Resolution 2009-02-03-04,1 dated 3 February 2009, asked the Root Server System Advisory Committee (RSSAC), the SSAC, and ICANN staff to study the potential impact on the stability of the root level of the DNS when IPv6 address records, IDN (Internationalized Domain Name) top level domains (TLD), other new TLDs, and new resource records to support DNSSEC are added to the root zone. This report is the SSAC's response to the Board's request.

[SAC045]: Invalid Top Level Domain Queries at the Root Level of the Domain Name System (15 November 2010) – See: <http://www.icann.org/en/committees/security/sac045.pdf>. The introduction of new TLDs involves technical considerations of the strings that may be proposed for use by applicants. This report calls attention to the potential problems that may arise should a new TLD applicant use a string that has been seen with measurable (and meaningful) frequency in a query for resolution by the root system and the root system has previously generated a response.

[SAC044]: A Registrant's Guide to Protecting Domain Name Registration Accounts (05 November 2010) – See: <http://www.icann.org/en/committees/security/sac044.pdf>. This report attempts to catalog measures that registrants should consider to protect their domain name registration accounts and the domain names managed through these accounts. The report describes the threat landscape for domain names, and identifies a set of measures for organizations to consider. The report also considers risk management in the context of domain names so that an organization can assess its own risk and choose appropriate measures.

[SAC043]: SSAC Comment on the JAS Report on the IANA Process for Implementing Root Zone Change Requests and on the IANA Explanatory Memoranda (5 October 2010) – See: <http://www.icann.org/en/committees/security/sac043.pdf>. This is a Comment by the Security and Stability Advisory Committee (SSAC) on a report by JAS Communications LLC: "IANA Process for Implementing Root Zone Change Requests: Review and Assessment of Risk Management Strategy and Comparison of Implementation Options" posted on 19 April 2010. This also is a comment on the IANA response to the JAS report recommendations, the "Explanatory Memoranda Regarding the Report 'IANA Process for Implementing Root Zone Change Requests – Review and Assessment of Risk Management Strategy and Comparison of Implementation Options.'"

SSAC Operational Procedures – In response to the review of the SSAC conducted by the Board Governance Committee of the ICANN Board of Directors, the SSAC completed various improvements to its procedures that have been incorporated into the SSAC Operational Procedures published on 15 November 2010. See: <http://www.icann.org/en/committees/security/ssac-operational-procedures-15nov10-en.pdf>.

SSAC Public Reports: Work Plan for 2010 (Published February 2010 and Updated September 2010) and Activity Reports (Updated in February and July) – See: <http://www.icann.org/en/committees/security/ssac-activity-report-26feb10-en.pdf> and <http://www.icann.org/en/committees/security/ssac-activity-report-sep10-en.pdf>. These reports describe the SSAC Work Plan for 2010. They also include a list of those work products that were produced in 2009. For the Activity Reports see: <http://www.icann.org/en/committees/security/ssac-activity-report-jul10-en.pdf> and <http://www.icann.org/en/committees/security/ssac-activity-report-nairobi-26feb10-en.pdf>. These reports describe the SSAC meetings and activities at ICANN meetings.

Internationalized Registration Data Working Group Presentation at the ICANN meeting in Brussels, Belgium (24 June 2010) and Publication of Interim Report (15 November 2010) -- The Working Group provided a presentation on approaches for discussion on 24 June at the ICANN meeting in Brussels, Belgium. See: <http://brussels38.icann.org/meetings/brussels2010/presentation-ird-whois-24jun10-en.pdf>. The Working Group also published for public comment an Interim Report. See: <http://gnso.icann.org/issues/ird/ird-wg-final-report-15nov10-en.pdf> and the public forum announcement at: <http://www.icann.org/en/public-comment/#ird>.

Workshops on DNSSEC at the ICANN meeting in Nairobi, Kenya (10 March 2010); Brussels, Belgium (23 June 2010); and Cartagena, Colombia (08 December 2010) – The SSAC held workshops in coordination with the DNSSEC Deployment Initiative at the ICANN meeting in Nairobi, Kenya on 10 March 2010; Brussels, Belgium on 23 June 2010; and Cartagena, Colombia on 08 December 2010.