Independent Review of the ICANN Security and Stability Advisory Committee:

Assessment Report

Report Prepared for the Internet Corporation for Assigned Names and Numbers (ICANN)

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Executive Summary

Since 2002, the Security and Stability Advisory Committee (SSAC) has advised the ICANN community and the ICANN Board of Directors (ICANN Board) on issues concerning the security and integrity of the Internet's naming and address allocation systems. The ICANN Bylaws require that the SSAC be independently reviewed at least once every five years.³ In accordance with this requirement, our review includes an assessment of: (1) the implementation state of SSAC's prior review, (2) whether SSAC has a continuing purpose within the ICANN structure, (3) how effectively SSAC fulfills its purpose and whether any change in structure or operations is needed to improve effectiveness, and (4) the extent to which SSAC as a whole is accountable to the wider ICANN community, its organizations, committees, constituencies, and stakeholder groups.

This report is the first stage of our independent review of the SSAC: an assessment of the SSAC's performance. A final report, which will be published later this year, will also include our recommendations to increase the SSAC's effectiveness.

The findings of our review are based on auditing of SSAC's in-person meetings at ICANN61 and those conducted remotely after ICANN61, a large number of individual interviews conducted among members of the ICANN community both in person and remotely, an online survey provided to members of the ICANN community, and a comprehensive review of materials published by the SSAC. Our interview and survey processes were designed to capture a wide variety of perspectives on the role of the SSAC, its strengths and weaknesses, and its relationship with the ICANN community.

Our principal findings are summarized briefly here and in more detail in Section I.D of this report.

- The SSAC is widely acknowledged to be very important to the overall mission of ICANN, the role of the SSAC as described in the ICANN Bylaws is closely aligned with ICANN's mission, and the SSAC is successful in providing high quality advice on a broad variety of relevant security, stability, and resiliency (SSR) issues. The SSAC is accountable directly to the ICANN Board, and through it to the wider ICANN community.
- Individuals suggested that the largest impediment to the SSAC's success is the fact that the organization is volunteer-based and has a large amount of work to do.
- The SSAC's process of generating advice is collegial and is generally effective. However, there is some concern among members of the SSAC that advice provided to the ICANN Board is not acted on in a timely manner. Similarly, there is some concern among members of the ICANN Board that the advice of the SSAC is not provided sufficiently quickly to the Board.
- Some interviewees indicated that there could be value in developing processes by which
 the SSAC could more formally review the security ecosystem as part of its topic selection
 process.

1

³ ICANN Bylaws, *ICANN*, Article 4, Section 4, available at https://www.icann.org/resources/pages/governance/bylaws-en#VII-1, accessed on May 1, 2018.

- There is a need for individuals with an understanding of SSR-related issues to take part in policy development, and members of the ICANN community discussed whether or not the SSAC or its members (as individuals) should play that role.
- The SSAC's size of roughly 40 members appears to be appropriate given tradeoffs in the size of the SSAC, though some thought that additional members with additional perspectives would be valuable.
- Many interviewees would like to see improvements in the SSAC's recruiting process, but they are cautious about the burden such processes might place on the SSAC's volunteers.
- The SSAC is perceived to lack geographical and gender diversity and is comprised mostly of male individuals from the U.S. and Europe, though it has diversity in technical expertise.
- The membership review process used by the SSAC today is clearer and more transparent than it had been in the past, and when flaws have been identified, the process has undergone (and continues to undergo) improvements.
- The SSAC's term length of three years for members is generally considered to be appropriate, but there exists much more variation in individuals' views as to the appropriate term limit, if any, for SSAC leadership.
- The SSAC is generally seen to be less transparent than other parts of ICANN. While most interviewees understand this to be necessary given the sensitive nature of security risks, many would like to see a more transparent SSAC.
- The SSAC has taken clear steps to implement the recommendations that were accepted after its prior review, and makes clear efforts to continually improve outside of the formal review process.

This assessment report has been published to solicit feedback from the ICANN community. Between June and July of 2018, there will be a public consultation period that will include a webinar and a public participation mailing list. The webinar is set to take place on July 12, 2018 at 20:00 UTC, with additional information available at https://community.icann.org/display/ACCSSAC/Assessment+Report+Webinar. To participate in the webinar and/or the mailing list, please contact mssi-secretariat@icann.org.

We will incorporate feedback into a final report, which will contain both our assessment of the SSAC and our recommendations for improving the operation of the SSAC. A draft final report will be published for public comments on September 12, 2018. The public comment period will last 40 days and close on October 22, 2018. After incorporating comments from the ICANN community, the final report will be published on November 21, 2018.

I. Introduction

A. ICANN

The Internet Corporation for Assigned Names and Numbers (ICANN) is an international non-profit organization in charge of coordinating the global Domain Name System and Internet policy, among other responsibilities.⁴ The mission of ICANN, as stated in its Bylaws, is "to ensure the stable and secure operation of the Internet's unique identifier systems."⁵

This mission includes the coordination and allocation of names in the root zone of the Domain Name System (DNS) and the coordination of the development and implementation of policies concerning the registration of second-level domain names. ICANN also coordinates the operation and evolution of the DNS root name sever system, as well as the allocation and assignment of Internet Protocol and Autonomous System numbers at the top-most level, providing open access for registries and facilitating the development of global registry policies.

Security, stability, and resiliency (SSR) is critical for the proper functioning of the Internet and the fulfillment of ICANN's mission. ICANN's "multi-stakeholder model" is structured to ensure that ICANN also represents the interests of industries, non-commercial organizations, individual Internet users, and national governments. While final decisions on Internet policy recommendations rest with the Board of Directors, ICANN's three Supporting Organizations (SOs) and four Advisory Committees (ACs) develop policy recommendations and advise the Board.⁶

B. ICANN's Security and Stability Advisory Committee

Since 2002, the Security and Stability Advisory Committee (SSAC) has advised the ICANN community and the ICANN Board of Directors (ICANN Board) on issues concerning the security and integrity of the Internet's naming and address allocation systems. In particular, the SSAC is responsible for:⁷

- Communicating on security matters with the Internet technical community and the operators and managers of critical DNS infrastructure services.
- Engaging 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 advising the ICANN community accordingly.
- Communicating with those who have direct responsibility for Internet naming and address allocation security matters (e.g., IETF, RSSAC, RIRs, and name registries) to ensure that

https://www.icann.org/resources/pages/beginners-guides-2012-03-06-en, accessed on May 15, 2018.

https://www.icann.org/resources/pages/governance/bylaws-en/#article1, accessed May 15, 2018.

https://www.icann.org/resources/pages/governance/bylaws-en#VII-1, accessed on June 14, 2018.

⁴ "Beginner's Guide to Participating in ICANN," ICANN, p. 2, available at

⁵ ICANN Bylaws, *ICANN*, Article 1, Section 1(a), *ICANN*, available at

⁶ "Beginner's Guide to Participating in ICANN," p. 2, available at https://www.icann.org/resources/pages/beginners-guides-2012-03-06-en, accessed on May 15, 2018.

⁷ ICANN Bylaws, *ICANN*, Article 12, Section 12.2(b)(i), available at

its advice on security risks, issues, and priorities is properly synchronized with existing standardization, deployment, operational, and coordination activities.

- Reporting periodically to the ICANN Board of Directors on its activities.
- Making policy recommendations to the ICANN community and ICANN Board of Directors.⁸

In order to fulfil these responsibilities, the SSAC studies issues using a consensus-driven model in order to produce reports, advisories, and comments:

- Reports are in-depth analyses that may recommend specific actions to ICANN, and typically take a number of months to produce.
- Advisories handle more time-sensitive concerns, addressing an active security or stability problem with recommended actions.
- Comments are responses to requests for feedback on other documents, either from groups within ICANN or from external organizations.⁹

These publications, known as the SAC series, are available online. ¹⁰ There have been 100 SAC-series publications in the SSAC's history, with ten publications released in 2017. ¹¹ In 2018, the SSAC also launched a new SSAC-Correspondence series of documents, used to communicate on management or community issues. ¹²

The SSAC Liaison to the ICANN Board of directors formally submits any SSAC reports or advisories via email along with a Submission Cover Letter 48 hours prior to publication. After 48 hours, the publication is posted to the SSAC web site and SSAC Discussion Space. The SSAC Chair then sends an email along with a Submission Cover Letter to any affected ICANN parties notifying them that the work product has been published.¹³

The SSAC selects research topics primarily through its own members, but also studies topics when directed to by the ICANN Board, and it accepts suggestions from SO/ACs and the ICANN community. Once the committee selects a particular subject, a Work Party (consisting of one or two leaders, as well as a flexible number of contributors and reviewers) is formed to study the issue.¹⁴

The SSAC is currently composed of 37 volunteer members, all of whom are technical experts in domain name, addressing, and/or security areas, with a mix of industry and research

⁸ "Security Committee Charter." *ICANN*, 2011. https://www.icann.org/groups/ssac/charter, accessed on May 21, 2018.

⁹ "SSAC Operational Procedures Version 5.1," SSAC, February 27, 2018, Section 1, p. 6.

¹⁰ "SSAC Documents | by Category", *ICANN*, available at https://www.icann.org/groups/ssac/documents-by-category, accessed on May 15, 2018.

¹¹ "SSAC Reports and Advisories", *ICANN*, available at https://www.icann.org/groups/ssac/documents, accessed on May 21, 2018.

¹² "SSAC Documents | Correspondence", *ICANN*, available at https://www.icann.org/groups/ssac/documents-correspondence, accessed on May 21, 2018.

¹³ "SSAC Operational Procedures Version 5.1," SSAC, February 27, 2018, Section 3.4, p. 33.

¹⁴ "SSAC Operational Procedures Version 5.1," SSAC, February 27, 2018, Sections 3.1-3.2, p. 28-29.

backgrounds. ¹⁵ All members participate as equals, although there is an Administrative Committee that includes the SSAC Chair, Vice-Chair, Liaison to the ICANN Board of Directors, and SSAC Support Staff. SSAC members in leadership roles do not receive special rights or privileges and are elected by SSAC's members. In addition to the Administrative Committee, other special roles in SSAC include liaisons, invited guests, and the SSAC Membership Committee. ¹⁶

The SSAC Membership Committee has two primary roles. First, it is the administrative body responsible for reviewing applicants and inviting new members to join the SSAC, subject to approval by the ICANN Board. Second, the SSAC Membership Committee is responsible for reviewing current members at the end of their term and making a recommendation regarding renewal to the SSAC. Members of the SSAC are appointed for three-year terms, which can be renewed indefinitely. Members whose terms are expiring that year are not eligible to serve on the Membership Committee. Typically, a third of SSAC's members are considered for renewal each year. The Membership Committee is composed of three non-voting members (the SSAC Chair and Vice-Chair, and the Liaison to the ICANN Board) and five voting members, who are volunteers from the SSAC.

In addition to the appointed members of the SSAC, there are three SSAC Support Staff who are paid employees of ICANN. These staff include the Sr. Director of Policy Development Support, a Technical and Policy Specialist, and a Senior Technical Analyst. ¹⁷ Their role is to assist in the production of SSAC work product and to serve on the Administrative Committee.

C. Independent Review of the SSAC

1. Scope of Review

The ICANN Bylaws require that the SSAC be independently reviewed at least once every five years. ¹⁸ In accordance with this requirement, our review includes:

- An assessment of the implementation state of the SSAC's prior review. This includes a status report of the implementations approved by the ICANN Board from the first SSAC Review, and an assessment of the effectiveness of these implementations.
- An assessment of whether the SSAC has a continuing purpose within the ICANN structure. This includes an examination of SSAC's chartered purpose, which is to advise

¹⁵ "SSAC Bios and Disclosures of Interest," available at https://www.icann.org/groups/ssac, accessed on May 21, 2018.

¹⁶ The SSAC currently has Outward Liaisons including a Liaison to the ICANN Board. While the SSAC does have Inward Liaisons, any Inward Liaison to the SSAC must meet the full qualifications to be an SSAC member. As a result, some individuals mentioned in interviews that they do not consider these to be Inward Liaisons in the traditional sense. Invited guests participate in SSAC activities such as Work Parties for an extended period of time when their expertise is particularly relevant (e.g., while developing a specific work product), but do not have the privileges of full membership such as voting, serving on the membership committee, or holding a leadership position. After this work is completed, they may apply to become permanent members.

¹⁷ "Security and Stability Advisory Committee." *ICANN*, 2017, https://www.icann.org/groups/ssac, accessed on May 21 2018

¹⁸ ICANN Bylaws, *ICANN*, Article 4, Section 4, available at https://www.icann.org/resources/pages/governance/bylaws-en#VII-1, accessed on May 1, 2018.

the ICANN community and Board on matters relating to the security and integrity of the Internet's naming and address allocation systems, and how well it is fulfilled. Such an examination is designed to assess the SSAC's continuing purpose within the ICANN structure.

- An assessment of how effectively the SSAC fulfills its purpose and whether any change in structure or operations is needed to improve effectiveness. Subject to the scope of the SSAC's chartered remit (ICANN Bylaws, 12.2(b)), we examine the purpose, structure, and operations with respect to the SSAC's effectiveness, in accordance with ICANN-provided criteria.
- An assessment of the extent to which the SSAC as a whole is accountable to the wider ICANN community, its organizations, committees, constituencies, and stakeholder groups. Here, we will assess if the SSAC is sufficiently accountable regarding security matters according to its chartered mandate to provide advice to the ICANN community and Board, and to engage and communicate with the community on various security matters as detailed in its role. 19

Our independent review of the ICANN SSAC is divided into two stages: (1) assessment of the SSAC's performance and (2) recommendations to improve the SSAC's effectiveness. *This report only reflects Stage 1 above*. Once this report is published and we have discussed our findings with the ICANN community, we will publish the Stage 2 final report that will include our assessment and our recommendations for improving the operation and effectiveness of the SSAC.

2. Review Methodology

To assess the SSAC's performance, we rely on a large number of individual interviews, an online survey, documents developed by the SSAC and other SOs/ACs, the prior external review, and auditing of SSAC's in-person meetings at ICANN61 and conducted remotely after ICANN61. The final report will also include recommendations to improve the functioning of the SSAC, based on this assessment.

It is important to emphasize that our approach to this assessment report, and to the final report, does not require perfect representation across the ICANN community from either those interviewed or those surveyed. We have not, for example, drawn conclusions based principally on the frequency with which we heard a particular opinion during our interviews and through the survey instrument. Rather, the interviews and online survey are methods designed to gather diverse perspectives across ICANN with the goal of ensuring we have heard and considered many diverse opinions before making our assessment and our recommendations.

We conducted 42 individual interviews with current and former members of the SSAC, the ICANN Board, SSAC support staff, and other members of the ICANN community. These interviews were

¹⁹ ICANN An Overview of the Request for Proposal for the Review of the ICANN Security and Stability Advisory Committee, *ICANN*, 2017, available at https://www.icann.org/en/system/files/files/rfp-ssac-review-07jul17-en.pdf, accessed on May 20, 2018.

conducted in-person at ICANN61 and remotely, and were intended to capture a wide variety of individuals' views on the role and processes of the SSAC, the strengths and weaknesses of the SSAC, and the relationship between the SSAC and the ICANN community.²⁰

To ensure we spoke with individuals that possessed a variety of perspectives, potential interviewees were selected through a variety of channels. In particular, interviewees were selected based on recommendations from the SSAC Review Working Party and from others within the ICANN community. Additionally, we asked interviewees for their personal recommendations of community members with different perspectives, and also interviewed people who contacted us directly and expressed an interest in sharing their feedback on the SSAC.

Figures 1, 2, and 3 show the composition of interviewees in terms of their affiliations within ICANN, their gender, and the global region that they associate with.

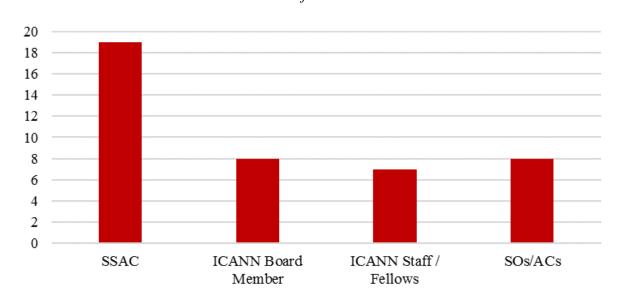


Figure 1: Current/Former ICANN Roles and Affiliations
Number of Interviewees: 42

7

²⁰ Interviews were semi-structured. While a list of questions was used as a reference, interviewees were asked different questions based on their backgrounds and on our learnings from prior interviews.

Figure 2: Gender Composition

Number of Interviewees: 42

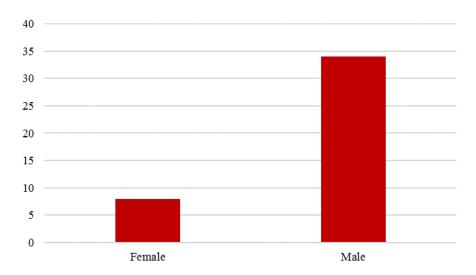
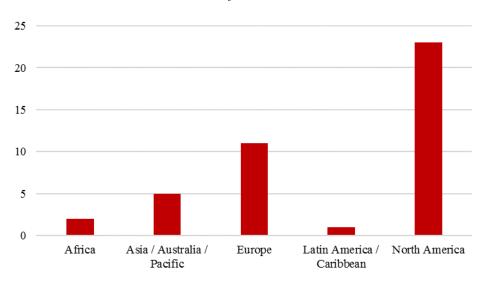


Figure 3: Region in which Interviewees Reside

Number of Interviewees: 42



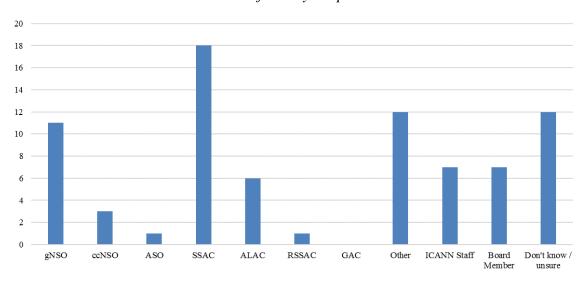
We also received input from the ICANN community through an online survey with the goals of (1) collecting feedback from a wider set of respondents, (2) allowing individuals who were not interviewed to provide feedback on the SSAC, and (3) allowing those who were interviewed and interested to comment on a broader set of topics. The survey was informed by our interviews and was refined in collaboration with the SSAC Review Work Party (RWP). The survey was publicized widely, and used best practices in survey design.²¹

8

²¹ Promotion of the survey included ICANN announcements, use of ICANN social media, and outreach to community members conducted by RWP. Survey best practices included randomized answer order to avoid

The online survey collected feedback from current and former members of the SSAC, the ICANN Board of Directors, other SOs/ACs, as well as ICANN staff and other individual members of the ICANN community. The survey had 52 total respondents who completed the entire survey.²² Figures 4, 5, and 6 below show the makeup of the group of survey respondents in terms of their affiliations within ICANN, their gender, and the global region which they associate with, respectively.

Figure 4: Current/Former ICANN Roles and Affiliations²³
Number of Survey Respondents: 80



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potential bias, minimization of open-ended questions for quantitative analysis, and options to "Not know" or be "Unsure," among others.

²² In addition, a larger group of up to 80 respondents answered only a portion of the survey. Findings are robust to this larger sample. Figures in this report show results from all respondents who answered the question.

²³ The number of survey respondents in each category does not sum to the total number of respondents because there is overlap in organizational affiliation.

Figure 5: Gender Composition

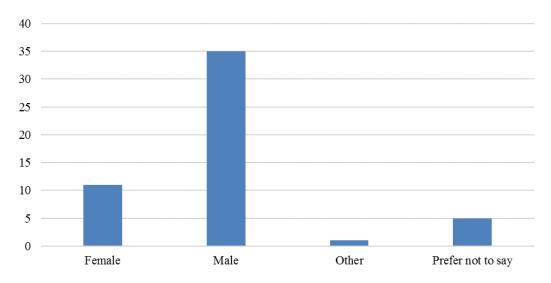
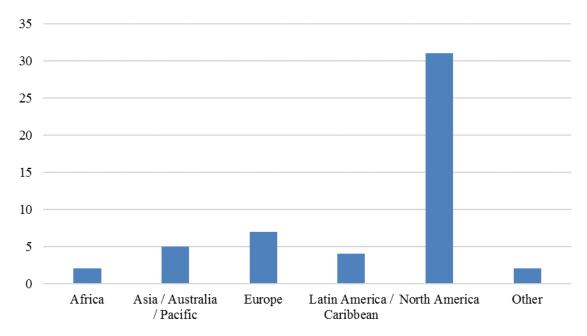


Figure 6: Region in which Survey Respondents Reside

Number of Survey Respondents: 52



D. Summary of Our Assessment Findings

Our Assessment findings are summarized below, and are grouped into six broad categories. Each finding is discussed in detail in Section II of this Assessment Report.

Effectiveness of the SSAC:

- 1. The SSAC is widely acknowledged to be very important to the overall mission of ICANN. The role of the SSAC is closely aligned with ICANN's mission.
- 2. Individuals throughout ICANN largely agree that the SSAC is successful in providing high quality advice on a broad variety of relevant SSR issues.
- 3. There is some concern among members of the SSAC that advice provided to the ICANN Board is not acted on in a timely manner. Similarly, there is some concern among members of the ICANN Board that the advice of the SSAC cannot be provided quickly.
- 4. The role of the SSAC Board Liaison is key in ensuring the Board is able to interpret and understand the advice provided by the SSAC.
- 5. Individuals suggested that the largest impediment to the SSAC's success is the fact that the organization is volunteer-based, yet has a large amount of work to do. SSAC volunteers express they have been subject to an increasing requests, both in number and in scope.
- 6. The SSAC's process of generating advice is collegial and is generally effective. Some best practices and suggestions for improvement have been gathered as part of the review process.

Topic Selection:

7. The SSAC is well prepared to deal with emerging security threats. It was noted that the SSAC does not have formal procedures geared towards identifying emerging threats as an input to setting research priorities. Some interviewees indicated that as threats continue to increase in number and in complexity, there could be value in developing processes by which the SSAC could more formally review the security ecosystem as part of its topic selection.

Interactions with other SOs/ACs:

- 8. There is a need for individuals with an understanding of SSR-related issues to take part in policy development, and some members of the community suggest the SSAC or its members (as individuals) should play that role. Others state that the SSAC should play a technical advice, audit, and verification role, and that assisting more directly in policymaking itself is not the point of the SSAC.
- 9. Many individuals both inside and outside of the SSAC identified that creating more interaction with other ICANN SOs/ACs should be an area of focus for the SSAC. The SSAC has been making strides to communicate more frequently and to forge stronger relationships with other SOs/ACs.

SSAC Size and Membership:

10. The SSAC has wide-ranging and deep technical expertise. The SSAC does not compromise its high technical requirements when vetting potential members, though some interviewees caution that the SSAC should avoid defining "technical" too narrowly, as SSR issues can be both technical and interdisciplinary.

- 11. The SSAC's size of roughly 40 members appears to be appropriate given tradeoffs in the size of the SSAC, though some thought that additional members with additional perspectives would be valuable.
- 12. The SSAC does not undergo active or targeted recruiting, but rather recruits informally based on need and the existing network of SSAC members. Many interviewees would like to see improvements in the SSAC's recruiting process, but they are cautious about the burden such processes might place on the SSAC's volunteers.
- 13. The SSAC is perceived to lack geographical and gender diversity and is comprised mostly of male individuals from the U.S. and Europe. While many individuals do not feel it is appropriate for a technical body to have "diversity for diversity's sake" at the expense of technical skill, several SSAC and non-SSAC members indicated that perspectives from other regions and types of individuals would be beneficial.
- 14. The membership review process used by the SSAC today is clearer and more transparent than it had been in the past, and when flaws have been identified, the process has undergone (and continues to undergo) improvements.
- 15. The SSAC's term length of three years for **non-leadership** members is generally considered to be appropriate, and almost all interviewees and survey respondents indicated that there should be no term limits for SSAC's non-leadership members.
- 16. The SSAC's term length of three years for **leadership** members is generally considered to be appropriate (Chair and Vice Chair). There exists much more variation in individuals' views as to the appropriate term limit, if any, for SSAC leadership.

Transparency and Accountability:

- 17. The SSAC is generally seen to be less transparent than other parts of ICANN. While most interviewees understand this to be necessary given the sensitive nature of security risks, many would like to see a more transparent SSAC.
- 18. The SSAC is accountable directly to the ICANN Board, and through it to the wider ICANN community.
- 19. The SSAC has mechanisms to allow for the disclosure of conflicts of interest, and members seem comfortable identifying other's potential conflicts of interest. Some SSAC members indicated that, by nature of the technical expertise required to contribute to the SSAC, limited conflicts of interest are unavoidable. Other SSAC members believe more can be done to limit potential conflicts.
- 20. The SSAC's website includes important information that assists with transparency. Community members suggested other items that may be useful to include.

Prior Review Implementation and Self-Improvement:

- 21. The SSAC has taken clear steps to implement the recommendations that were accepted after its prior review. With minor caveat, the SSAC has been successful in these implementations.
- 22. The SSAC values self-improvement and makes clear efforts to continually improve even outside of the formal review process.

II. Assessment

A. Alignment with the Missions of ICANN and SSAC, and Effectiveness of the SSAC

1. The SSAC is widely acknowledged to be very important to the overall mission of ICANN. The role of the SSAC is closely aligned with ICANN's mission.

The role of the SSAC is closely aligned with the overarching mission of ICANN. The mission of ICANN, as stated in its Bylaws, is "to ensure the stable and secure operation of the Internet's unique identifier systems." SSAC's role as an Advisory Committee within ICANN is "to advise the ICANN community and Board on matters relating to the security and integrity of the Internet's naming and address allocation systems."

Numerous interviews revealed that, in practice, the missions of ICANN and the SSAC align. While ICANN's role extends broadly beyond technical matters, the SSAC focuses specifically on providing reliable technical advice regarding security risks to the Internet naming and address allocation services. Interviewees who self-identified as non-technical members of the ICANN community widely agreed that they rely on and expect the SSAC to proactively help the community, including those without technical backgrounds, on technical issues related to the security, stability, and reliability of processes and decisions regarding the DNS and root zone.

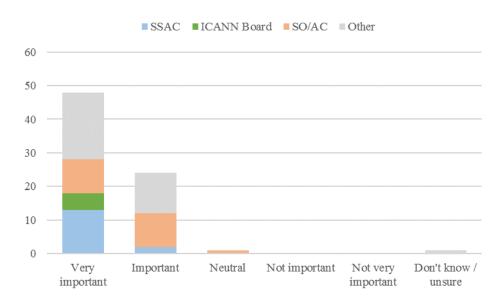
As shown in Figure 7, when asked how important the SSAC is to the overall mission of ICANN, all but one respondent indicated that the SSAC is either very important or important, with 97% indicating that the SSAC was very important. Notably, not a single survey respondent believed that the SSAC was not important or very much not important. This aligns with the results of our interviews, where all but one person asked agreed that the SSAC is "critical" to the mission of ICANN.

https://www.icann.org/resources/pages/governance/bylaws-en/#article12, accessed June 20, 2018.

²⁴ ICANN Bylaws, *ICANN*, Article 1, Section 1(a), *ICANN*, available at https://www.icann.org/resources/pages/governance/bylaws-en/#article1, accessed June 20, 2018. ²⁵ ICANN Bylaws, *ICANN*, Article 12, Section 2(b), available

Figure 7: How important do you perceive the SSAC is to the overall mission of ICANN?

Number of Survey Respondents: 74



2. Individuals throughout ICANN largely agree that the SSAC is successful in providing high quality advice on a broad variety of relevant SSR issues.

Interviews and survey responses largely agree that the SSAC is successful in providing high quality SSR advice. Individuals noted that the SSAC provides high quality advice on a variety of SSR issues, and they noted that the SSAC has a particularly strong work ethic and generates a large quantity of advice and documents for a volunteer group. The technical skill and ability of SSAC members are clear to others throughout the ICANN community, and ICANN Board members indicate that they appreciate and rely on the SSAC's advice.

SSAC's published materials are its primary way of providing advice to the community. As shown in Figure 8, the SSAC has published 100 documents in its SAC series, which include SSAC Reports, Advisories, and Comments, as discussed in Section I.B. above. The SSAC has continued its high rate of publication since its last review, and interviews indicate that these documents have been useful to the ICANN community. Numerous interviewees noted SAC095, "SSAC Advisory on the Use of Emoji in Domain Names," as a particularly useful recent SSAC work that was widely reviewed.²⁶

In 2018, the SSAC introduced a new type of document, known as an "SSAC Correspondence" to allow the SSAC to more effectively track SSAC letters, comments, and other correspondence on administrative, community, and other non-SSR issues (e.g., comments on the recent NomCom Independent Review). ²⁷ To date, this new document series appears to have increased SSAC's

²⁶ "SAC095 SSAC Advisory on the Use of Emoji in Domain Names", SSAC, May 25, 2017, available at https://www.icann.org/en/system/files/files/sac-095-en.pdf, accessed on May 15, 2018.

²⁷ "New SSAC Document Numbering System", SSAC, January 3, 2018, available at https://www.icann.org/en/system/files/files/ssac2018-01-03jan18-en.pdf

communication with the wider community, as the total number of SSAC Correspondences for the first part of 2018 is greater than the total number of SSAC documents in 2017.

Figure 8: SSAC's Published Documents through May 10, 2018

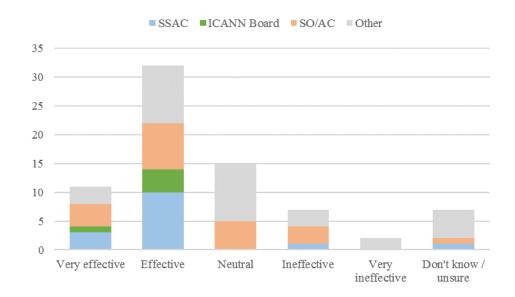
Number of Documents

	SAC Series Documents					SSAC
Year	Report	Advisory	Comment	Letter	Total	Correspondence
2001	1				1	
2002	3				3	
2003	1				1	
2004	1				1	
2005	1				1	
2006	6		2		8	
2007	5	1	2		8	
2008	5	3	4		12	
2009	4	1	2		7	
2010	3		1		4	
2011	2	1	2		5	
2012	2	2	1		5	
2013	1	3	2	1	7	
2014	2	3	1		6	
2015		2	5		7	
2016		2	11	1	14	
2017		2	7	1	10	
2018					0	13
Total	37	20	40	3	100	13

While 58% of respondents find the SSAC to be very effective or effective, some individuals indicated otherwise (see Figure 9). Understanding these perspectives is important as the SSAC continues to improve upon itself in the years ahead. 12% of respondents indicated that the SSAC was either ineffective or very ineffective, while 20% were neutral. Notably, while the majority of SSAC and ICANN Board members found the SSAC to be effective, members of other SOs/ACs and others held more varied views.

Figure 9: How effective, or ineffective, is the SSAC in performing its role?

Number of Survey Respondents: 74



We also asked both interviewees and survey respondents to comment on the effectiveness of SSAC's advisory process. Figure 10 shows that 53% of respondents found the SSAC's advisories, in particular, to be either very effective or effective.

Figure 10: How effective, or ineffective, are the outcomes from SSAC's advisory process?²⁸

Number of Survey Respondents: 51

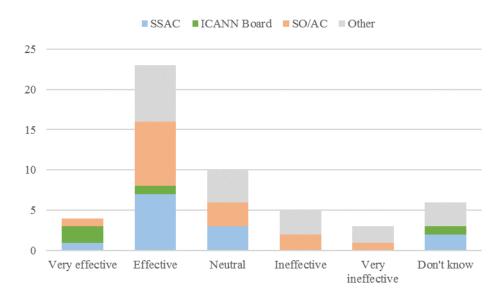
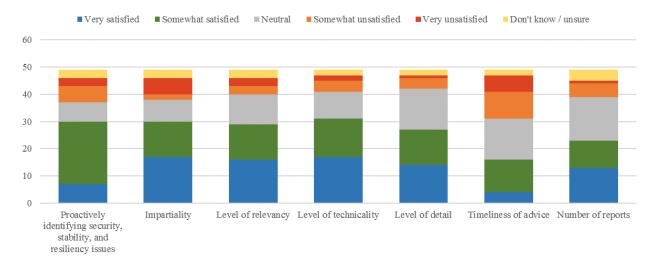


Figure 11 shows the results of a question asking how satisfied respondents were with various aspects of the SSAC's advisory process. Most individuals were either very satisfied or somewhat satisfied across a broad variety of aspects relating to the SSAC's advice generation. Respondents were least satisfied with the timeliness of the SSAC's advice.

Figure 11: Please indicate the extent to which you are satisfied, or not, with the following aspects of the advisory process.²⁹

Number of Survey Respondents: 49



Individuals provided a number of ways that they believe the SSAC could be more effective. Figure 12 shows the results of a question asking respondents to rank the most important areas for the SSAC to improve upon. Top responses include requests for the SSAC to develop processes to provide advice in a more timely fashion, to increase stakeholder involvement, and to develop better relationships within the ICANN community (e.g., with other SOs/ACs). These and other suggested places for refinement are discussed throughout this Assessment Report.

The SSAC prides itself on technical expertise and its credibility stems from that; but, it serves and communicates with a broader audience that is in some places much less technical. Interviews indicated that increased efficiencies could come from heightened sensitivity to a less-technical mindset and the priorities of readers (e.g., policy development timelines and implementation needs). For example, it was suggested that at times the SSAC could be more clear and/or concrete in articulating how advice could be acted on or implemented, and work on its articulation on issues where legal, policy, or territorial matters closely relate to technical security.

²⁹ This question also explained that "The SSAC's advisory process involves activities such as providing advisories, comments, or reports in regards to security, stability, and resiliency technical issues."

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²⁸ This question also explained that "The SSAC's advisory process involves activities such as providing advisories, comments, or reports in regards to security, stability, and resiliency technical issues."

Figure 12: What would you consider the most important areas for the SSAC to improve on?

Number of Survey Respondents Who Included Response in Top Three Selections

Response	Total			
Develop processes to provide advice in a more timely fashion				
Engage stakeholders through public meetings and presentations				
Develop better relationships with ICANN community (such as SOs/ACs)				
Solicit feedback from ICANN community and third parties as part of work party process				
Improve delivery process of relaying advice to the ICANN community	10			
Develop better relationships with third parties outside of ICANN	10			
Participate in ICANN community public comment periods	10			
SSAC recruiting	9			
Develop better coordination with the timing of priorities for other SOs/ACs	8			
Better tailor writing styles based on audience of advice	8			
Incorporate outside expertise into the SSAC advisory process	7			
Topic selection	6			
Improve SSAC work party efficiency and coordination. Establish formal coordination processes	6			
Technical writing	6			
Incorporate support staff into WP				
None	2			

3. There is some concern among members of the SSAC that advice provided to the ICANN Board is not acted on in a timely manner. Similarly, there is some concern among members of the ICANN Board that the advice of the SSAC cannot be provided quickly.

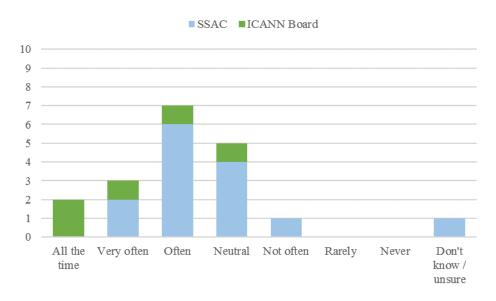
Interviews and survey results generally indicated that the relationship between the SSAC and the ICANN Board is effective. The ICANN Board greatly appreciates the advice of the SSAC, and relies on its advice when making SSR-related decisions. It was also indicated that there may be room for further alignment in timing or timing expectations between the SSAC and the ICANN Board. Within the SSAC, many individuals indicated that they do not feel the ICANN Board implements advice in a timely manner. On the Board, individuals indicated that they wished the SSAC could, at times, better align the timing of advice with the Board's decision making schedule.

As shown in Figure 13, the majority of respondents on both the ICANN Board and the SSAC feel as though the ICANN Board implements SSAC advice often, very often, or all the time, while only one respondent said not often.

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³⁰ See Figure 16.

Figure 13: How often does the ICANN Board implement advice given to them by the SSAC?



In October 2016, ICANN reviewed the historical advice provided to the ICANN Board by the SSAC and provided the SSAC with an update.³¹ Since that time, the ICANN Board has maintained an advice tracker, updated periodically.³² This Action Request Register (ARR) "provides a centralized system supporting a consistent and repeatable process for tracking and managing [ALAC, RSSAC, and SSAC] advice."³³ Many interviewees indicated that the ARR has been very helpful in creating a more transparent feedback process, allowing the SSAC to have a better idea as to the status of its advice. However, while 39% of survey respondents expressed that the ARR is very effective or effective, 44% felt neutrally, and several find the tracker to be very ineffective (see Figure 14).

Interviews reveal that those who do not find the ARR to be effective have concerns about the timeliness of the ICANN Board in responding to SSAC advice, and find the tracker to lack transparency in showing the status of items that are in the process of being implemented, a process that they say can at times take more than a year. Figure 15 indicates that many respondents feel that the ICANN Board can be untimely in its response, and no respondents feel that the Board responds in a very timely manner. An internal analysis conducted by members of the SSAC RWP

³¹ "ICANN Board Advice Register and Status of SSAC's Historical Advice to the ICANN Board," ICANN, October 19, 2016, available at https://www.icann.org/en/system/files/correspondence/crocker-to-faltstrom-19oct16-en.pdf.

³² The most recent tracker can be found on ICANN's website at https://features.icann.org/board-advice.

³³ "Board Advice Process," ICANN, available at https://www.icann.org/en/system/files/files/board-advice-process-handbook-25oct17-en.pdf.

found that some SSAC advice takes more than two years between report release and ICANN Board Resolution, and advice can at times take over a year to implement thereafter.

Figure 14: How effective have you found the Board's tracker at tracking advice received from the SSAC?

Number of Survey Respondents: 18

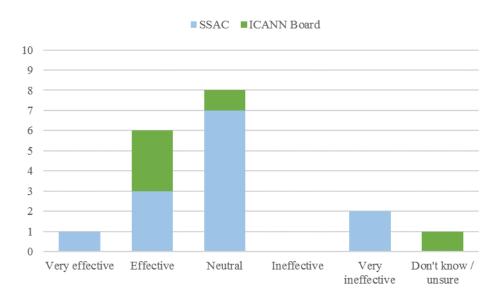
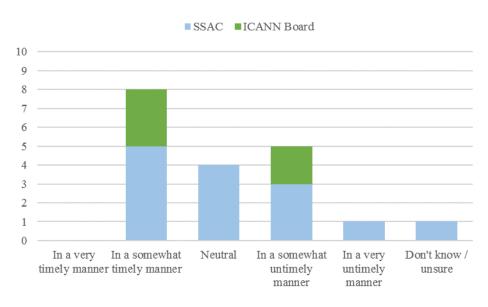


Figure 15: How timely, or untimely, is the ICANN board in reacting to, and potentially incorporating, SSAC advice?

Number of Survey Respondents: 19



This aligns with responses heard in interviews: that is, that the ICANN Board is very busy, SSAC advice is one of many items that the Board considers, and thus is sometimes is not considered as quickly as some might expect. Interviews with ICANN Board members indicate there are several

factors that affect the speed with which the Board responds to SSAC advice. This includes the clarity of the advice, the alignment of SSAC advice with the timing of other issues the Board is considering, and the ways in which particular pieces of advice are put forward for review by the Board.

Interviews with ICANN Board members indicated that some believe the SSAC could do a better job of lining up the advice it provides with the decision making timeline of the ICANN Board. The Board also expressed that it would be useful if the SSAC were able to provide the Board with a "quick look" at certain SSR issues, even if it meant foregoing the full consensus process used by the SSAC. These Board members believed it would be valuable for the SSAC to be able to at times consider providing a varied set of non-consensus opinions (with that nuance laid out clearly) to help the Board understand an issue expediently when needed.

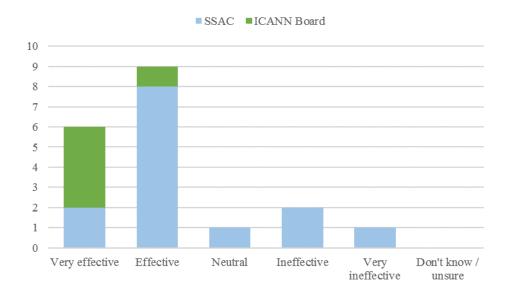
Additionally, certain ICANN Board and SSAC members cautioned that the SSAC should be careful not to become unduly focused on process issues at the expense of technical advice. Several individuals suggested that the Name Collision Analysis Project (NCAP) is one such example to be mindful of.

4. The role of the SSAC Board Liaison is key in ensuring the Board is able to interpret and understand the advice provided by the SSAC.

Both interviews and survey results, as shown in Figure 16, confirm that the SSAC and ICANN Board have an effective relationship. Members of the ICANN Board unanimously spoke of the importance and value of the role played by the SSAC Liaison in maintaining that relationship, and also described other SSAC members as approachable.

The ICANN Board is an extremely busy body, and its membership has a varied background with differing degrees of technical expertise. The ICANN Board relies heavily on the SSAC Liaison to assist it in understanding the importance and implications of SSAC advice, drawing its attention to specific items, and understanding when and how to ask the SSAC for advice. In practice, the SSAC Liaison formally submits SSAC documents to the ICANN Board. Board members indicated that the Liaison has gone beyond this by preparing useful summaries of the documents to help the Board contextualize any important technical nuances of the advice. It was separately suggested that similar summaries may also be useful to a broader audience outside of the ICANN Board.

Figure 16: How do you describe the relationship between the SSAC and the ICANN Board?



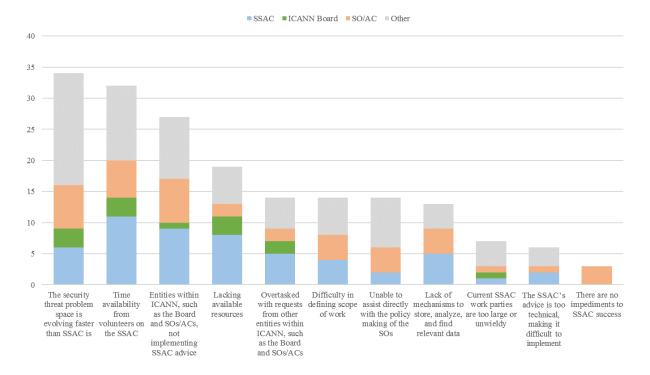
5. Individuals suggested that the largest impediment to the SSAC's success is the fact that the organization is volunteer-based, yet has a large amount of work to do. SSAC volunteers express they have been subject to an increasing requests, both in number and in scope.

As with many bodies within ICANN, the SSAC is comprised entirely of volunteer members who donate their time, efforts, and expertise. As discussed above, SSR issues are important within the mission of ICANN, and they relate to a wide variety of ICANN activities. The limited time of SSAC members has historically needed to be juggled between competing priorities to provide advice, and as mentioned above, the SSAC has been prolific in providing advice documents to the ICANN Board and Community.

Interviews revealed numerous individuals who feel that a lot is being asked of the SSAC. This included among SSAC members, many of whom reported that there are increasing demands on their time. Multiple reasons were given: some SSAC members feel as though the ICANN Board is asking for guidance more often than it previously did; some reflect that the recent NCAP project is very large in scope (the largest project that the SSAC has taken on), and that it also requires project management overhead; and, others reflect that there is increasing requests for collaboration with other SO/ACs, as discussed further in this Assessment Report.

When asked about the largest impediments to the SSAC completing its duties, roles, or mission, options relating to the time and resources available to the SSAC were mentioned frequently. As show in Figure 17, the second most selected option (32 respondents) indicated that "time availability from volunteers on the SSAC" is the largest impediment. This "time availability" was the most frequently selected option by SSAC members themselves, and tied as the top impediment noted by members of the ICANN Board. Similarly, 19 respondents cited the SSAC was "lacking available resources," and 14 indicated that the SSAC was "overtasked with requests from other ICANN entities." These three options each ranked in the top five most frequent responses.

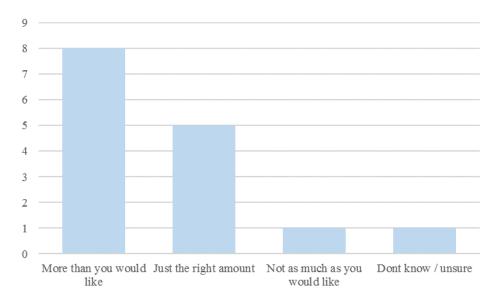
Figure 17: What would you consider the biggest impediments to the SSAC completing its duties, roles, or mission?



Survey responses also show that SSAC members may feel they need to contribute more often than they would like to, an important factor in the longer-term sustainability of any volunteer organization. As seen in Figure 18, 53% of SSAC respondents felt that their time contribution to the SSAC was "more than you would like," while 33% felt their contribution was "just the right amount."

Figure 18: What is your view of your time contributions to the SSAC?

Number of Survey Respondents (SSAC Members): 15



Several individuals suggested strategies that could be considered to help reduce the burden on the SSAC without decreasing its effectiveness. One option frequently mentioned was to look for opportunities to collaborate with ICANN's Office of the Chief Technology Officer (OCTO) more frequently, and it was noted that communication between the two groups is already strong. It was also noted that the SSAC should go back to the ICANN Board (or others) with requests for resources if needed - for example, the SSAC recently requested funding to support the NCAP project, which would include the use of external contractors for certain tasks.

In terms of support for individual research projects, several individuals noted that past experience with working with SSAC "Invited Guests" on specific issues has been helpful, a result born out in the survey where 73% of SSAC respondents reflected that such guests have been effective. Interviewees noted that these guests could be academics with related research interests, or simply individuals interested in assisting the SSAC with a specific project or research item. Additionally, it was suggested that the SSAC could consider whether or not ICANN Fellows could provide assistance in certain kinds of work.

Finally, SSAC members broadly have praised the skills of ICANN Staff in supporting the SSAC. Several interviewees suggested that perhaps additional staff resources would help with the large amount being asked of the SSAC.

6. The SSAC's process of generating advice is collegial and is generally effective. Some best practices and suggestions for improvement have been gathered as part of the review process.

SSAC members that we interviewed generally reflected that the process of generating advice is collegial and effective. This matches our observations of SSAC meetings both remotely and in person. Interviewees noted three areas of success that particularly stand out: (1) the SSAC makes sustained efforts to provide a collaborative environment; (2) the SSAC works to keep an awareness of its audience and the "bigger picture"; and, (3) the SSAC Support Staff effectively assists the SSAC.

The SSAC makes a clear effort to foster an environment where expressing differing viewpoints and building consensus is encouraged. Members of the SSAC state that they are comfortable speaking up on any topic, and that they aim to listen to and engage in dialogue with their peers. From observation, SSAC meetings are very polite. Members take turns in meetings, and make sure any interested member has time to speak on a topic. Work parties also make an effort to incorporate views into SSAC materials after a conversation takes place. The results of this collegiality can be seen in the large amount of consensus-based output that the SSAC creates.

In addition, we observed that members of the SSAC take a step back to think about the "big picture." Members of the SSAC ask themselves if the work they engage in is relevant to the SSAC's remit, and if it is of use to the ICANN Community. Multiple SSAC members indicated that the SSAC is not afraid to stop Work Parties that do not appear to have a clearly defined objective or that do not seem as though they will result in actionable advice. Additionally, we have seen the SSAC engage in discussions regarding the audience of their communications to attempt to ensure that wording is as clear as possible. Multiple SSAC members reiterated the importance of getting this right.

Every interviewee who was asked reflected on the importance of, and appreciation for, the work undertaken by the SSAC Support Staff. Contributions range from heavily assisting with writing, to keeping detailed track of and notes from Administrative Committee and Work Party meetings via status and timeline tracking, to assisting with and presenting on data analysis.

A number of favored best practices were also mentioned in discussions. Several SSAC members identified that it has been useful at times to have two chairs for a Work Party, in case one becomes busy. These individuals reflected that typically the SSAC is successful at determining situations in which two Work Party chairs might be useful. Others reflected that recent efforts to standardize document processes around Google Docs have been effective.

Several pain points and places for refinement were identified. Multiple members of the SSAC mentioned that the SSAC does not currently have dedicated data storage space, which could be useful for the ability to do more analysis. Others reflected that it would be useful for the SSAC to record operational metrics around the time taken for each stage of the publication development process, so that the SSAC could use these data to refine processes. Finally, a few interviewees reflected that the SSAC should be careful not to get too caught up in administrative issues at the expense of technical analysis and advice.

B. Topic Selection

7. The SSAC is well prepared to deal with emerging security threats. It was noted that the SSAC does not have formal procedures geared towards identifying emerging threats as an input to setting research priorities. Some interviewees indicated that as threats continue to increase in number and in complexity, there could be value in developing processes by which the SSAC could more formally review the security ecosystem as part of its topic selection.

The SSAC has strong technical expertise and almost all interviewees indicated that the SSAC is generally well-prepared for SSR threats that may occur in the future. Less technical interviewees indicated that they do not have the background to know if the SSAC is appropriately evaluating the security landscape to pick topics of research focus, but these interviewees stated they are relying on the SSAC to do so.

The SSAC's method of selecting topics to provide advice on has evolved over time. Interviews indicate that in the early days of the organization, the SSAC Chair drove the focus of the organization. Today, the SSAC's administrative committee maintains a running list of potential topics for research, and it keeps tabs on SSAC member interest in each topic. Topic ideas are generated in a variety of methods, including informally via SSAC meetings and emails, direct requests from the ICANN Board and SO/ACs, and also at ICANN Meetings including via informal interactions and the SSAC's Public Meeting. The SSAC's internal Annual Workshop also devotes a section to developing new ideas.

In order for a topic to be focused on by the SSAC, several conditions must be met. There needs to be a member (or two) of the SSAC who is interested in leading the Work Party on that topic, and there needs to be enough interest and availability among other members to take part. The question must also be clearly defined, actionable, and within the scope of the SSAC's remit. The SSAC has historically disbanded a Work Party if it becomes apparent that the underlying questions are not clear. There are currently no formal voting or prioritizing mechanisms around topic selection, which has been seen as appropriate for a volunteer organization.

This process of topic selection has been effective for many years. Interviewees indicate that, historically, the research interests of the SSAC have aligned with the security needs of the ICANN community, in part because the SSAC is comprised of experts who inherently are interested in pressing security issues. However, individuals on the SSAC and the ICANN Board also indicated that there is some interest in considering whether or not the SSAC should develop more formal procedures geared towards identifying emerging threats as an input to setting research priorities. Several interviewees believe that the cybersecurity landscape and number of threats is rapidly evolving, and that a more defined process could be useful in assessing this environment. We note that the SSAC is planning to host a session on emerging security threats during Tech Day at ICANN62.

As shown in Figure 19 below, 53% of survey respondents find the current topic selection process to be either very effective or effective in identifying emerging and future security threats, while 24% were neutral, and 18% felt the process was ineffective or very ineffective. While the majority of respondents find the current process to be effective, the ability to identify emerging and future threats in regards to SSR issues is critical for ICANN, and it would be ideal if more respondents felt this way. Similarly, Figure 20 shows that while 18% of respondents were very satisfied with the current topic selection process, 47% were only somewhat satisfied, and 35% felt neutral, somewhat unsatisfied, or very unsatisfied.

Figure 19: How well do you feel the current topic selection process is able to identify emerging and future threats?

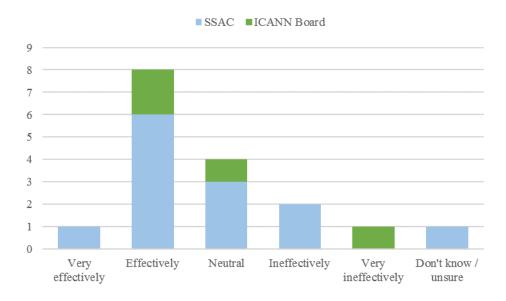
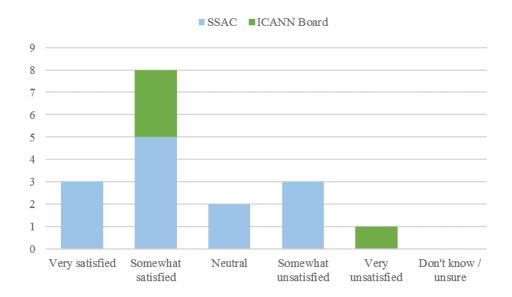


Figure 20: Are you satisfied, or unsatisfied, with the current topic selection process?

Number of Survey Respondents: 17



C. Interactions with other SOs/ACs

8. There is a need for individuals with an understanding of SSR-related issues to take part in policy development, and some members of the community suggest the SSAC or its members (as individuals) should play that role. Others state that the SSAC should play a technical advice, audit,

and verification role, and that assisting more directly in policymaking itself is not the point of the SSAC.

Interviews indicated that there are varied expectations among members of the ICANN community in regard to the role of the SSAC within ICANN's policymaking processes. Some individuals indicated that the SSAC needs to play a more active part in the community and participate in policy making and other community work. These individuals suggested that the SSAC participate directly in working groups, and through this participation, provide their expertise and knowledge directly with those helping to develop ICANN policy early in the process.

Others, including many individuals on the SSAC, suggest that this is a misunderstanding of how the SSAC functions and how security issue awareness should be integrated into policy development. These individuals tended to suggest that the SSAC should continue to focus on providing consensus-based advice on core technical issues, and that the role of the SSAC is to provide advice, and to audit the SSR implications of policies and practices once they are developed. As one interviewee stated, for example: "The SSAC should not evaluate what TLD strings are okay, but rather should comment on whether the process used to determine the appropriateness of TLD strings has been okay."

All interviewees who were asked about this issue agreed that it is important for SSR advice and awareness of SSR issues to be incorporated into ICANN policymaking. In practice, individuals had mixed views whether or not the SOs/ACs are currently effective in incorporating SSR knowledge and implementing the SSAC's advice. In interviews, some members of SOs/ACs stated that they believe the SSAC's advisories are primarily used by the ICANN Board and not in SO/AC policymaking. Survey results, as shown in Figure 21, provide a more mixed view. Many individuals state that SSAC advice is sometimes incorporated in reviews. However, we note that the number of survey responses from members of any one individual SO/AC was small, making it difficult to put too much weight on this metric, as can be seen in Figure 22. In both figures, we see that many respondents were unsure whether the SSAC's advice was used in policy development.

Figure 21: How often is the advice given by the SSAC incorporated into the policy development process of the following SOs/ACs?

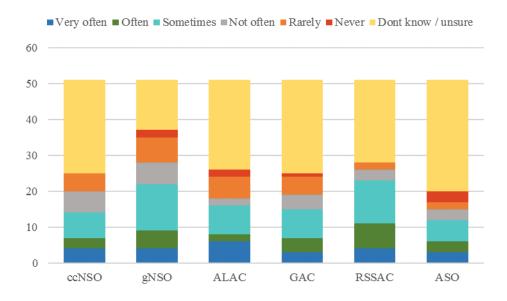
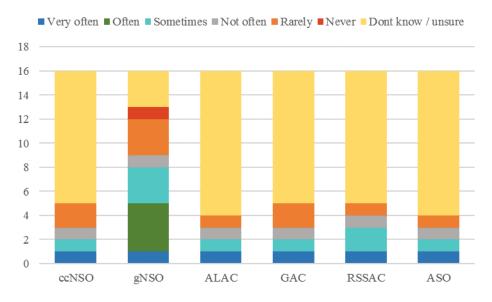


Figure 22: How often is the advice given by the SSAC incorporated into the policy development process of the following SOs/ACs? (SO/AC Member Responses Only)

Number of Survey Respondents: 16



Individuals also reflected on situations in the past few years where the SSAC's decision audit and verification role has led to tensions between the SSAC and other groups. Interviewees referenced instances where the SSAC's advice was either in disagreement with the advice of work parties or shutdown work processes, sometimes after volunteers had invested significant time into the effort. For example:

- SAC084 (2016) responded to the ccNSO's EPSRP Working Group's Proposed Guidelines for the Extended Process Similarity Review Panel for the IDN ccTLD Fast Track Process.³⁴ The SSAC recommended that the "ICANN Board not accept the proposed guidelines for the EPSRP, as those guidelines represent a threat to the security and stability of the DNS."35
- SAC098 (2017) commented on the processes being followed by the SSR2 Review Team after the review team had spent "hundreds of hours engaged in procedural matters and almost no progress... made on substantive matters," and suggested that the ICANN Board, "[t]ake immediate action to temporarily halt the SSR2 review."³⁶

To be clear: it is the role of an independent SSAC to audit policy and to advise the ICANN Board to prevent policies that may inadvertently lead to security risks. It is not only healthy, but also necessary for ICANN to have a mechanism by which security experts can flag concerns, and that the ICANN Board is able to listen to these concerns to pause, slow down, or halt work that may have adverse security implications for the Internet. The fact that the SSAC's advice was able to lead to a pause in work streams that the SSAC believed needed to be revisited is a sign that these mechanisms are working.³⁷

At the same time, when the SSAC's advice regards the work of other volunteers after a significant amount of time has been invested, feedback can cause tensions. For example, in SAC055, the SSAC commented on the WHOIS Review Team's Final Report that "a single universal 'WHOIS' policy, as defined in the Review Team's report, is unlikely to be effective or even achievable," and that the ICANN Board should "defer any activity... directed at finding a 'solution' to 'the WHOIS problem" until the purpose of domain name registration data is better understood. 38,39 Individuals wished that they had known the SSAC's concerns regarding this earlier, before substantial volunteer efforts had been invested. In the case of SAC055 and SAC084, some individuals wished that the SSAC had participated in the work party or in earlier opportunities for public review. One individual cautioned that it can seem as though the "SSAC ends up [...] marking up people's homework and giving them an "F" without being involved in their work."

SSAC members and others explained in interviews (and in SAC089) that ability to participate is partially a function of the SSAC's available resources and existing processes, and that the SSAC has worked to discuss and improve processes. 40 The SSAC is small relative to the number of ICANN efforts that intersect with SSR issues, and furthermore, as SSAC opinions require

³⁴ "Final Report ccNSO EPSRP Working Group", ccNSO, January 6, 2017, available at https://ccnso.icann.org/sites/default/files/file/field-file-attach/2017-04/epsrp-final-report-06jan17-en.pdf, accessed

^{35 &}quot;SAC084 SSAC Comments on Guidelines for the Extended Process Similarity Review Panel for the IDN ccTLD Fast Track Process", SSAC, August 31, 2016, available at https://www.icann.org/en/system/files/files/sac-084-

³⁶ "SAC098: The Security, Stability and Resiliency of the DNS Review (SSR2)", SSAC, October 4, 2017, available at https://www.icann.org/en/system/files/files/sac-098-en.pdf

³⁷ We note that we have not independently reviewed all of the security details behind these decisions and are not commenting on the details of these specific examples.

³⁸ "WHOIS Policy Review Team Final Report", May 11, 2012, available at https://www.icann.org/en/system/files/files/final-report-11may12-en.pdf

³⁹ "SAC055 WHOIS: Blind Men And an Elephant" SSAC, September 14, 2012, available at https://www.icann.org/en/system/files/files/sac-055-en.pdf, accessed on May 30, 2018.

⁴⁰ "SAC089: SSAC Response to ccNSO Comments on SAC084", SSAC, December 12, 2016, available at https://www.icann.org/en/system/files/files/sac-089-en.pdf

consensus-building process, individuals are unable to speak alone on behalf of the SSAC. This does not prevent SSAC members as individuals from being involved in ICANN policy, though in practice that is difficult due to the volunteer nature of the SSAC and the amount of work required by SSAC members. Interviewees widely agree that individual members of the SSAC are friendly, helpful, and approachable when it comes to discussing SSR. The SSAC has also focused more in recent years on providing feedback into public comment periods. Additionally, members of both the ccNSO and the SSAC reflected that collaboration after initial tensions was generally effective.

Some individuals note that if the SSAC is not to be involved in policymaking, then the SSAC could consider ways to help ensure that SSR issues are raised earlier in the policymaking processes of other SOs/ACs: for example, by helping to nurture a discussion forum for those working to incorporate SSR issues into ICANN policy. It was suggested that this could raise the likelihood of all going well in SSAC audit activities. As one interviewee put it: "the greatest success is if it is the case that interaction between PDPs and SSAC and SSR people lead to the result that the SSAC's review of PDPs and policy find that everything is fine."

9. Many individuals both inside and outside of the SSAC identified that creating more interaction with other ICANN SOs/ACs should be an area of focus for the SSAC. The SSAC has been making strides to communicate more frequently and to forge stronger relationships with other SOs/ACs.

The SSAC has a strong reputation throughout ICANN for its technical expertise. Non-SSAC members who know individual SSAC members describe them as approachable, and generally reflect on having positive personal relationships. However, some interviewees also have indicated that the SSAC can at times seem like an "ivory tower" that is less accessible to the rest of ICANN. As the SSAC's purpose is to provide SSR advice to both the ICANN Board and the ICANN community, many individuals indicated that strong and active relationships throughout ICANN, coupled with the SSAC's independence, is helpful to that goal.

Of survey respondents who had an opinion, the current relationships between the SSAC and SOs/ACs are largely described as somewhat positive or neutral, with the exception of the RSSAC which is described as very positive or somewhat positive (see Figure 23).⁴¹ We find similar results in 7, which shows that most respondents were either somewhat satisfied or felt neutrally about the level of interaction between the SSAC and SO/ACs, and in Figure 25, which shows that most respondents were either somewhat satisfied or felt neutrally about the level of interaction between the SSAC and the ICANN community, more broadly. Of those who had an opinion, 26% were either somewhat unsatisfied or very unsatisfied with the SSAC's level of interaction with the ICANN community.

https://www.icann.org/en/system/files/files/rssac-review-assessment-report-22feb18-en.pdf.

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⁴¹ We note that this observation aligns with the recent RSSAC review, which found that "The RSSAC's relationship with the SSAC has improved and is working well." "Independent Review of the ICANN Root Server System Advisory Committee (RSSAC)," Interisle Consulting Group, February 22, 2018, available at

Figure 23: How would you describe the relationship between the SSAC and SOs/ACs?

Number of Survey Respondents: 57

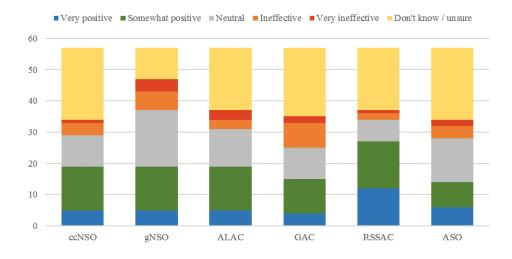


Figure 24: How satisfied, or unsatisfied, are you with the current level of interaction between the SSAC and the following SOs/ACs?

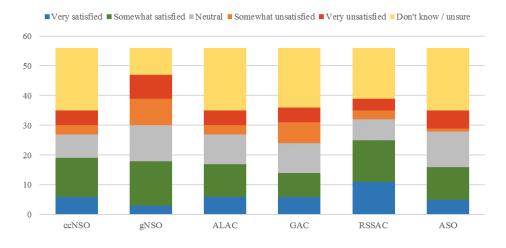
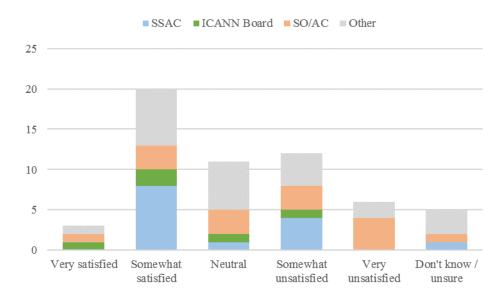


Figure 25: How satisfied, or unsatisfied, are you with the current level of interaction between the SSAC and the ICANN community (outside of SOs/ACs)?



Interviews identified many instances where individuals would like more communication from the SSAC. Survey respondents who identified reasons why they were not satisfied with their interactions with the SSAC reported that some top reasons are:

- There is no mechanism for feedback between the SSAC and SOs/ACs.
- There are few shared group members between the SSAC and other SOs/ACs.
- The SSAC does not participate enough in public comment periods of other SOs/ACs.
- The timing of SSAC advice is not synchronized with the needs of SOs/ACs.

While these areas were identified, we note that people commented in interviews that the SSAC has taken steps in recent years to increase its visibility within ICANN. This has occurred both within and outside of the SSAC's formal advisories.

In regards to its advisories, our interviews and observation of SSAC meetings indicate that the SSAC is focused on providing advice in a way that is understandable and accessible. Almost all interviewees who had an interest in doing so indicated that they are able to read and understand SSAC documents. SSAC interviewees were particularly focused on ensuring documents could be understood so that they could be useful.

Outside of its advisories, the SSAC has made efforts to focus on the community. For example, the SSAC has been increasingly focused on providing feedback into public comment periods in recent years. Members of the SSAC also participated on the original SSR2 Review Team (prior to SAC098) and intend to continue participation. It was noted positively that both outgoing and incoming SSAC Chairs attended recent SO/AC Chairs meetings. We also observed recent examples directly: the SSAC held a joint session with the ALAC at ICANN61, hosted large public

meetings in regards to the NCAP Working Group, and will be hosting a session on emerging security topics at Tech Day at ICANN62.

D. SSAC's Size, Membership, and Term Length and Limits

In this section, we summarize our findings, derived from both our interviews and survey results, regarding the SSAC's size, membership, and term length and limits. Currently, the SSAC is made up of 37 members, one of whom is elected by the SSAC to be the Liaison to the ICANN Board of Directors. Members of the SSAC are appointed for three-year terms, which can be renewed indefinitely. The SSAC Chair and Vice-Chair lead the committee, and the SSAC receives support from three SSAC Support Staff who are paid employees of ICANN. This includes the Sr. Director of Policy Development Support, a Technical and Policy Specialist, and a Senior Technical Analyst. Their role is to assist in the production of work products and to serve on the Administrative Committee.

Before, however, moving into our discussion of the SSAC's size, membership, and structure, it is important to note that:

10. The SSAC has wide-ranging and deep technical expertise. The SSAC does not compromise its high technical requirements when vetting potential members, though some interviewees caution that the SSAC should avoid defining "technical" too narrowly, as SSR issues can be both technical and interdisciplinary.

In particular, we heard from several interviewees regarding the value of having individuals with a legal and/or policy background, as such expertise would help to ensure that the SSAC's advice is clear, understandable, and actionable. With this in mind, it should be noted that over the past several years the SSAC has recruited members with more diverse backgrounds, particularly with legal and/or policy expertise, in part to adapt to ICANN's needs and to be prepared for current and future issues. The SSAC reflects that current SSAC membership includes two members with law degrees, two privacy and public policy experts, and seven with experience in government positions across executive branch, law enforcement, and military service.

1. Size

11. The SSAC's size of roughly 40 members appears to be appropriate given tradeoffs in the size of the SSAC, though some thought that additional members with additional perspectives would be valuable.

Many individuals indicated that a balance needed to be struck when considering the size of the SSAC. In particular, more members may help with an increasingly large work load while also increasing the range of skills, or diversity of perspectives, held by SSAC members, while fewer members may make it easier to reach consensus on certain issues before the SSAC. Cognizant of this balance, most individuals we interviewed stated that SSAC's current size of approximately 40 members (currently 37) is appropriate. This is supported by our survey results, displayed below in Figure 26, in which a large majority of individuals indicated that the SSAC is the "right size."

⁴² "Security and Stability Advisory Committee." *ICANN*, 2017, https://www.icann.org/groups/ssac, accessed on May 21, 2018.

Figure 26: Is the Current Size of the SSAC Too Large, Too Small, or the Right Size?

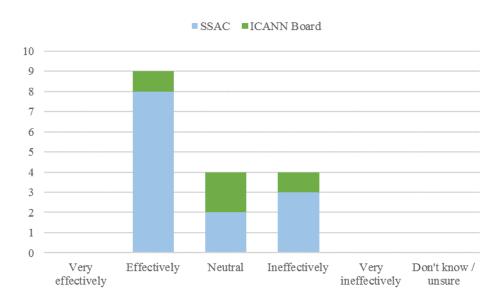
Number of Survey Respondents: 17



While most interviewees who were asked and most survey respondents (see Figure 27) indicated that the SSAC currently covers the areas of expertise that it should, several individuals noted that there are certain types of skills and experience that are lacking.

Figure 27: How Effectively Does the SSAC Cover All Areas of Expertise?

Number of Survey Respondents: 17



2. Membership

12. The SSAC does not undergo active or targeted recruiting, but rather recruits informally based on need and the existing network of the SSAC. Many interviewees would like to see improvements

in the SSAC's recruiting process, but they are cautious about the burden such processes might place on the SSAC's volunteers.

When considering whether to recruit new members, the SSAC first identifies gaps in skills through the use of a skills matrix that the SSAC has developed and refined over the years. Although some individuals find the skills survey to be either very effective or ineffective in identifying these gaps (see Figure 28 below), a number of individuals either were neutral on the effectiveness of the skills survey or found it to be ineffective in identifying gaps. Interviews indicated that this is because the skills survey was seen as out of date. However, the SSAC is currently in the process of updating the skills survey to address this.

Number of Survey Respondents (SSAC Members): 15

10

8

6

4

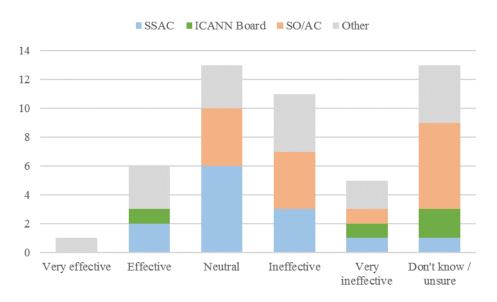
Very effective Effective Neutral Ineffective Very ineffective unsure

Figure 28: How Effective is the SSAC Skills Survey at Identifying Gaps?

Once these gaps have been identified, SSAC members then typically rely on their own networks of contacts to identify potential candidates, in addition to the general practice of accepting applications for membership. While this informal approach to recruiting has generally appeared to work well, many interviewees and survey respondents suggested that improvements could be made, and in particular, that a more formalized process might increase the diversity of backgrounds, skills, and expertise of new SSAC members. In particular, as shown below in Figure 29 below, only a small number of survey respondents rated the SSAC's recruiting operations as being very effective or effective, with many respondents indicating that the SSAC's recruiting operations as neutral, ineffective, or very ineffective. Some commented that the question was difficult to answer, because the SSAC does not have a formal recruiting operation.

Figure 29: How effective, or ineffective, do you believe the SSAC's recruiting operations are?

Number of Survey Respondents: 49



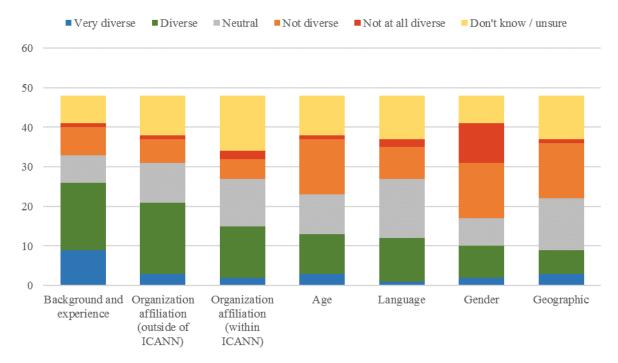
The SSAC has an open process for accepting applications for membership; anybody can contact the SSAC and request consideration to join. However, we heard from several individuals that the process and requirements to become an SSAC member is not clear to many outside of the SSAC. Some interviewees reflected a concern that the ICANN Board might simply "rubber stamp" whoever the SSAC deems should join. The lack of geographic and gender diversity on the SSAC also leads some to view its membership selection process with suspicion (i.e., "an ivory tower" or "boys club"), as the technical diversity valued by the SSAC may not be as readily apparent to the community at large.

13. The SSAC is perceived to lack geographical and gender diversity and is comprised mostly of male individuals from the U.S. and Europe. While many individuals do not feel it is appropriate for a technical body to have "diversity for diversity's sake" at the expense of technical skill, several SSAC and non-SSAC members indicated that perspectives from other regions and types of individuals would be beneficial.

Interviewees who were asked, as well as survey respondents, generally indicated that the SSAC is not diverse along a number of dimensions, including geography, gender, age, and language. Below, in Figure 30, we provide a summary of survey responses to the question of the degree to which the SSAC is diverse with respect to geography, gender, ICANN organizational affiliation, organizational affiliation outside of ICANN, background/experience, age, and language. While 49% of responses indicated that the SSAC is either very diverse or diverse with respect to organizational affiliation outside of ICANN and background/experience, only 23% of responses indicated that the SSAC is either very diverse with respect to including geography, gender, age, and language.

Figure 30: How Diverse is the SSAC along these Dimensions?

Number of Survey Respondents: 48



Although a lack of diversity was noted, many interviewees stated that given the technical nature of the material considered by the SSAC, diversity should not be prioritized over technical expertise. However, there was one caveat to this sentiment; in particular, several individuals noted that to the extent there are SSR-related issues that are specific to certain regions or geographies, it may be important to ensure greater geographic diversity within the SSAC.

14. The membership review process used by the SSAC today is clearer and more transparent than it had been in the past, and when flaws have been identified the process has undergone (and continues to undergo) improvements.

As noted earlier above, each SSAC member is reviewed prior to determining whether to reappoint that member to an additional three-year term. Based on both our interviews and the survey responses, the membership review process is generally seen as being effective (see Figure 31 below), although there have been a small number of instances in which the review process resulted in outcomes that were viewed negatively. Based on these negative outcomes, interviewees noted that changes have been made to the review process, including informal check-ins with the Chair of the SSAC.

In addition to individuals generally indicating that the review process is effective, most individuals also noted that the Membership Committee is transparent (see Figure 32) and that the Membership Committee follows its own rules and procedures (see Figure 33).

Figure 31: How Effective if the Membership Committee at Reviewing Current SSAC Members?

Number of Survey Respondents (SSAC Members): 15

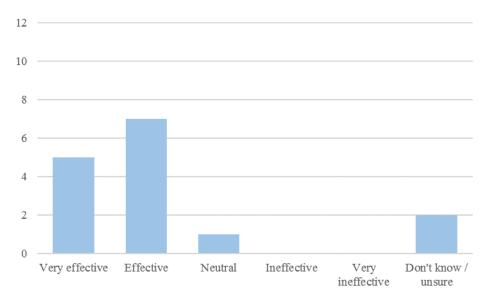


Figure 32: Is the Membership Committee Transparent?

Number of Survey Respondents (SSAC Members): 15

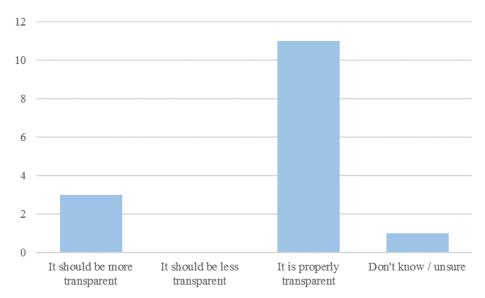
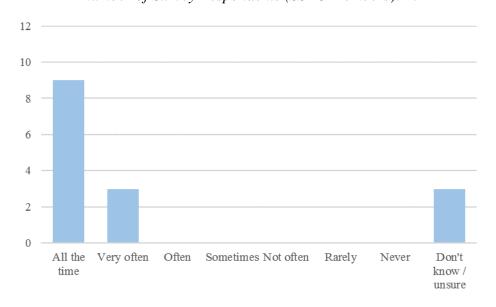


Figure 33: Does the Membership Committee Follow Its Procedures?

Number of Survey Respondents (SSAC Members): 15



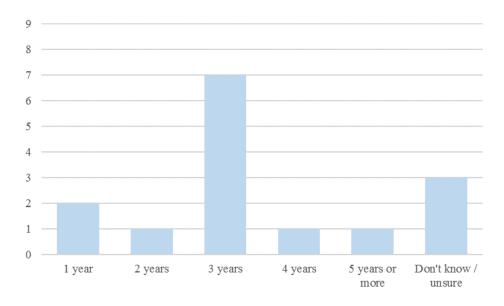
3. Term Length and Limits for SSAC Members

15. The SSAC's term length of three years for **non-leadership** members is generally considered to be appropriate, and almost all interviewees and survey respondents indicated that there should be no term limits for SSAC's non-leadership members.

When asked whether any changes should be made to the term length of SSAC's non-leadership members, as shown in Figure 34 below, the majority of respondents suggested that the current three-year term length is the most appropriate, although a few individuals suggested shorter or longer terms for SSAC members. When asked about the appropriate term length, individuals noted the tradeoff in shorter as opposed to longer terms, with shorter terms potentially allowing for more turnover and less chances of organizational capture, and longer terms allowing for greater organizational effectiveness given the time required to come up to speed on working within ICANN and SSAC. Most respondents indicated that a three-year term balances these benefits and concerns.

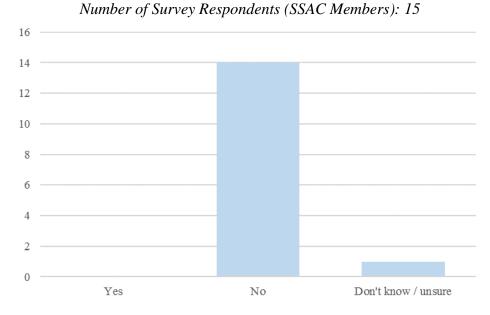
Figure 34: What is the Appropriate Term Length for SSAC's Non-Leadership Members?

Number of Survey Respondents (SSAC Members): 15



When asked if SSAC members should have term limits, no survey respondents indicated that such term limits should exist. (See Figure 35 below.) Similarly, no interviewees proposed that term limits be instituted.

Figure 35: Should there be Term Limits for SSAC's Non-Leadership Members?

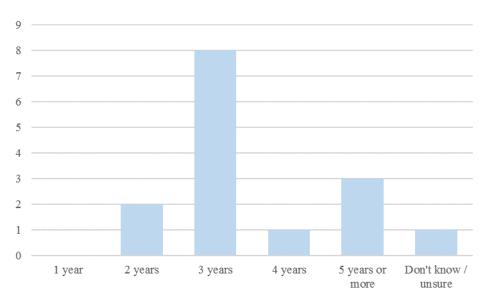


16. The SSAC's term length of three years for **leadership** members is generally considered to be appropriate (Chair and Vice Chair). There exists much more variation in individuals' views as to the appropriate term limit, if any, for SSAC leadership.

When asked whether any changes should be made to the term length of SSAC's leadership members, as shown in Figure 36 below, the majority of respondents suggested that the current three-year term length is the most appropriate, although a few individuals suggested shorter or longer terms for SSAC leadership members.

Figure 36: What is the Appropriate Term Length for SSAC's Leadership Members?

Number of Survey Respondents (SSAC Members): 15



There was somewhat less consensus with respect to whether there should be term limits for the leadership of the SSAC, and if there are term limits, the appropriate length of such a term limit. As shown in Figure 37 below, a total of four respondents (out of 15) expressed a view that there should be no term limits for SSAC's leadership, as currently is the case for the SSAC Chair, while ten respondents expressed a view that there should be a term limit, with most of these individuals expressing support for a limit of two terms for SSAC's leadership.

It should be noted that in February 2018, the SSAC voted to impose term limits for its Vice-Chair and Board Liaison positions, however, was unable to impose term limits for the SSAC Chair position due to the ICANN Bylaws. The ICANN Bylaws specifically state that the SSAC Chair may serve an unlimited number of terms. ⁴³ The ICANN Bylaws do not impose a similar restriction across other SOs/ACs, and some SSAC members noted it may be useful for the SSAC to have prerogative of choice over this decision.

⁴³ "The chair and members may be re-appointed, and there are no limits to the number of terms the chair or members may serve," ICANN Bylaws, Section 12.2.b.ii

9
8
7
6
5
4
3
2
1 term 2 terms 3 terms 5 terms or There should Don't know / more be no term unsure limits

Figure 37: Should there be Term Limits for SSAC's Leadership Members?

Number of Survey Respondents (SSAC Members): 15

E. Transparency and Accountability

17. The SSAC is generally seen to be less transparent than other parts of ICANN. While most interviewees understand this to be necessary given the sensitive nature of security risks, many would like to see a more transparent SSAC.

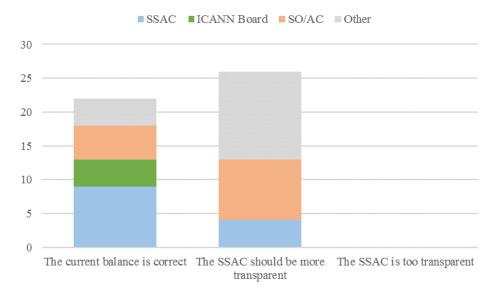
The needs of transparency and the handling of SSR issues can be in tension. While ICANN's philosophy is to be as open as reasonably possible, those in the security community must follow a responsible disclosure model. In short, a vulnerability or security issue should only be disclosed to the community after it has been discovered, notification has been given to the impacted parties, and a period of time allowing the vulnerability to be addressed has passed.

The SSAC, by its nature and role, deliberates on issues related to the security, stability, and resilience of the Internet's naming and numbering systems. As the SSAC studies various topics, a bad actor with too much transparency could look for and identify clues into vulnerabilities to exploit. Interviews have indicated that many within the SSAC value and want to provide transparency, but finding the right way to do so can be difficult.

That said, many individuals around the ICANN community (including a portion of SSAC members) question whether or not the SSAC needs to be as closed as it is. As can be seen in Figure 38, 54% of survey respondents would like the SSAC to be more transparent. Notably, while 100% of respondents from the ICANN Board and 69% of those from the SSAC feel as though the SSAC is properly transparent, 71% of SO/AC and Other respondents would like more transparency. Nobody felt that the SSAC should be less transparent.

Figure 38: How well do you feel as though the SSAC's level of transparency balances with competing values (e.g., the importance of confidentiality in security issues)?

Number of Survey Respondents: 48



Interviewees and survey respondents who want more transparency indicate that it is difficult to trust the outcome of processes that are not known and traceable. When the SSAC serves in an audit role that can (and has) generated advice leading to the security-related shutdown of potential policies and community processes, it becomes easy for those working on the impacted activities to question the process by which the SSAC has reached its conclusion.

Two specific community concerns were identified:

- Some feel as though SSAC outcomes are provided without an ability to see or understand the SSAC's processes. They describe that SSAC meetings are closed and public meetings are scheduled during busy ICANN weeks.
- As discussed in-depth elsewhere in this review, the SSAC has not historically participated in community-based policy development. Individuals who have not studied the SSAC and its methods have stated it is not immediately obvious to them why that is.

The SSAC has taken a number of steps since its last review to increase transparency. These include the publication of materials online (as discussed further below), the creation and publication of work plans, and enhanced language around objections and conflicts of interest in SSAC publications. At ICANN61, the Independent Examiner attended the SSAC's public meeting and noticed that the SSAC was clear in presenting planned work, offered significant time for community engagement, and proactively answered the questions that were asked of it.

SSAC members indicate that recent conversations have probed ways to increase transparency further. Ideas have included whether additional meeting minutes could be provided, whether more SSAC meetings could be open, and how the SSAC might work with ICANN Communications to provide public updates or highlights to SSAC work. In addition, the recent NCAP work party has

required the SSAC to proceed in a more transparent manner (e.g., with extended public meetings and comment periods). For further analysis of the SSAC's role in providing advice for policymaking and for transparency in the selection of SSAC members, please see other sections of this Assessment Report.

18. The SSAC is accountable directly to the ICANN Board, and through it to the wider ICANN community.

In order to function effectively, the SSAC must be free to give accurate technical advice on SSR issues regardless of whether or not that advice is popular. One can imagine situations where security interests and business desires may not align (e.g., areas where compromising the security of the internet may be profitable to one specific stakeholder). As such, it is important that the SSAC is accountable in a way that it can maintain its independence.

While to date the ICANN Board has relied on members of the SSAC to recommend whether new members should be added or existing members should be renewed, interviews indicate that the SSAC has put careful study into its membership recommendations, which has led the ICANN Board to accept them.

Additionally, we note that as the SSAC is an advisory committee, and it is the ICANN Board and other parts of the community that act on the SSAC's advice. As the SSAC itself makes recommendations, not decisions, the recommendations of the SSAC by their nature will involve the scrutiny of the ICANN Board or other impacted groups. Because it is an advisory committee, interviewees indicated that it is paramount for the SSAC to provide its advice in an unbiased and transparent way to maintain trust in its recommendations. As discussed elsewhere, community members generally find the SSAC's advice to be effective, and interviewees note that outside of some specific instances of tension outlined above, the SSAC's advice is well respected within ICANN.

19. The SSAC has mechanisms to allow for the disclosure of conflicts of interest, and members seem comfortable identifying each other's potential conflicts of interest. Some SSAC members indicated that, by nature of the technical expertise required to contribute to the SSAC, limited conflicts of interest are unavoidable. Other SSAC members believe more can be done to limit potential conflicts.

The SSAC has both formal and informal mechanisms to disclose a conflict of interest. Formally, every member of the SSAC is required to provide a Declaration of Interests "not less frequently than once a year, or whenever there is a material change, declaring and describing any specific interests, relationships, arrangements, or affiliations that might affect or reasonably be perceived to affect his or her judgement in the context of participation in SSAC."⁴⁴ These declarations are posted on the SSAC's website, and our review shows that they are regularly updated both in the course of business and as new members join. SAC publications after this mechanism went into effect also contain a hyperlink to these statements.

⁴⁴ "SSAC Operational Procedures Version 5.1," SSAC, February 27, 2018.

Informally, most interviewees indicated that members of the SSAC either properly recuse themselves or disclose conflicts of interest as they arise. Several described situations where a potential conflict of interest was called out proactively during SSAC meetings to help ensure that potential biases were clear in conversation. SSAC members seemed to welcome and encourage such dialogue. In our observation of SSAC meetings, this mechanism seems to be working individuals were quick to disclose both personal and professional biases as part of conversation. Almost all SSAC survey respondents are either very satisfied or satisfied with the current recusal policies (see Figure 39).

Many members of the SSAC discussed that potential conflicts of interest are impossible to completely avoid on the SSAC, as many of its members have built their deep expertise in industry and, as volunteers, it would be unrealistic for SSAC members to leave their job as a requirement for SSAC duty. As can be seen in Figure 40, a majority of SSAC members believe that the level of conflict of interest perceived in the SSAC is a 3 on a 1-5 scale (with 1 being the lowest).

However, several interviewees expressed that additional recruitment outside of the SSAC's traditional network might help to reduce conflicts of interest further. For example, they suggested that recruiting additional academics or security researchers might diversify the SSAC and lower the potential for conflicts of interest. In addition, a couple of interviewees suggested that the informal method of topic selection in the SSAC could potentially cause SSAC members to focus on topics related to their day job. In our survey, 20% of SSAC respondents stated they were more likely to participate in a work party that related to their day job.

Finally, several interviewees noted that the SSAC has been discussing conflicts of interest in-depth as part of the NCAP working group.

Figure 39: How satisfied, or not satisfied, are you with the SSAC's current recusal policies (e.g., allowing for recusals or withdrawals in each published document)?

Number of Survey Respondents (SSAC Members): 15

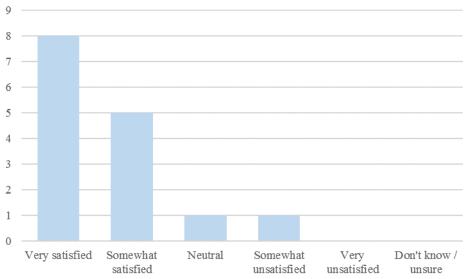
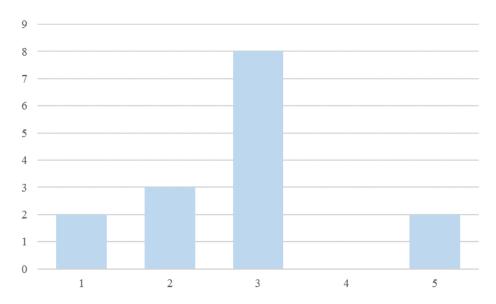


Figure 40: Do you perceive the current level of conflict of interest on the SSAC to be low, moderate, or high, on a scale of 1 to 5 (with 1 being low and 5 being high)?

Number of Survey Respondents (SSAC Members): 15



20. The SSAC's website includes important information that assists with transparency. Community members suggested other items that may be useful to include.

The SSAC's website broadly contains information on:

- What the SSAC is and how it operates (including a link to the SSAC's operating procedures);
- The official role of the SSAC, as per the ICANN Bylaws;
- Biographical information and conflict of interest statements for SSAC members;
- SSAC work plans back to 2010, currently published at a pace of 3 per year; and,
- The SSAC's "SAC" and "SSAC-Correspondence" document series.

Review of the SSAC's website reveals that it is generally kept up to date. As of May 2018, the SSAC's most recent operating procedures are posted (version 5.1 from February 2018), the SSAC's stated role matches the current ICANN Bylaws, and the SSAC's biographical information was last updated on March 2018.

Since 2014, the SSAC's work plans have been presented via "SSAC Activities Update[s]" during the SSAC's Public Session at ICANN meetings. These documents are hosted online and include a contemporaneous overview of the SSAC, the SSAC's advice generating processes, current Work Parties, recent SSAC publications, and questions to/from the community.

The SAC and SSAC-Correspondence documents are clearly organized by topic and year, which is helpful in reviewing. The topics for the SAC series are currently: "Addressing," "DNS Abuse," "DNS Security," "ICANN Planning," "Internationalized Domain Names," "Registration Services," "Root System," and "WHOIS." We note that the SSAC's overview page does not

currently explain the purpose of the SSAC Correspondence series, which may be a helpful clarification.

Two types of information, not on the SSAC website, came up in interviews. First, several interviewees questioned why the SSAC does not post minutes of its meetings or more details about the activities of its working groups. As discussed in detail above, historically this has been because of tradeoffs between security and transparency. Second, interviewees asked if the SSAC would be able to put more information on its website regarding what the SSAC looks for in new members and how one might know if he/she were qualified to apply. While the Membership Selection process is described in Section 2.2 of the SSAC's operating procedures, it is not discussed on the main SSAC webpage.

In addition, one member of the community stated that it might be helpful to include pictures of current SSAC members on the SSAC's webpage to make it easier to identify and meet individuals at ICANN meetings.

F. Prior Review Implementation and Self-Improvement

21. The SSAC has taken clear steps to implement the recommendations that were accepted after its prior review. With minor caveat, the SSAC has been successful in these implementations.

JAS Communications LLC was engaged to perform an external review of the SSAC in November 2008, and subsequently released its assessment on May 15, 2009 (the "JAS Review").⁴⁵ The ICANN Bylaws dictate than an external review is to be carried out for each of its advisory committees and support organizations every five years. At the time of the JAS Review, the ICANN Bylaws dictated that the external review identify:

- Whether that organization has a continuing purpose in the ICANN structure, and
- If so, whether any change in structure or operations is desirable to improve its effectiveness.

The JAS Review determined that "Unquestionably, the SSAC has a continuing purpose in the ICANN structure." The review found that security and stability was and would continue to be important within the ICANN community and that the SSAC were adept at providing the necessary technical advice. In its report, JAS identified three areas around which to improve the SSAC:

- <u>Organizational clarity and charter</u> The SSAC's charter was considered overly broad leading to difficulties in determining what fell within the SSAC's remit. JAS identified several areas where further clarification was needed.
- <u>Improving formality and transparency</u> JAS recommended the SSAC engage in an annual review and planning process together with ICANN management, staff, and other SOs/ACs enabling better coordination with the community. Additionally, JAS recommended several improvements to strengthen SSAC's internal processes such as publishing meeting minutes, incorporating outside expertise, and implementing a member review process.

⁴⁶ "Review of the ICANN Security and Stability Advisory Committee," JAS Communications, Section 3, p. 4, May 15, 2009.

⁴⁵ "Review of the ICANN Security and Stability Advisory Committee," JAS Communications, May 15, 2009.

• <u>Proactively addressing conflicts of interest</u> - JAS recommended various actions to reduce conflicts of interest and provide an opportunity for recusal and dissents to be noted.

1. JAS Review Findings

JAS outlined a series of findings in its Final Assessment Report including but not limited to the SSAC's adherence to its mandate and the procedural effectiveness of publishing work products.

JAS provided a summary of the SSAC's effectiveness for each of the SSAC's chartered task areas.⁴⁷

- **Develop a security framework**: The original SSAC Charter included a task area aimed at developing a security framework for the DNS and outlined a need to focus on operational issues. The JAS review concluded that the SSAC did not appear to have a "security framework" document, or similar work product. Furthermore, there was some ambiguity and disagreement over whether the SSAC's should continue to "focus on operational considerations of critical naming infrastructure" as the SSAC typically focused on items of larger, strategic importance rather than strictly operational issues. As a result of the review, the mandate to develop a security framework was dropped from the SSAC's Charter. 48
- Communication on security matters: The SSAC has been highly effective in communicating with the internet technical community and operators, and it has become a respected brand.
- Ongoing threat assessment and risk analysis: The SSAC has been proactive in research and publications, however, JAS noted that ongoing threat and risk assessment might require significant resources that were lacking. Some SSAC reports were found to be too technically focused to be easily used to policy makers and too technical to be accessed by non-technical professionals.
- Communicate with those who have direct responsibility for DNS security matters: The SSAC membership was well representative of relevant communities, leading to direct communication.
- **Report periodically to the ICANN Board**: In the past, communication was largely informal. In November 2008, the positions of "SSAC Chair" and "Liaison to the ICANN Board" were created to increase formality.
- Make policy recommendations: The SSAC makes occasional policy recommendations, however, the "consistency and effectiveness of SSAC's formal communication with the Board is in doubt." Some feedback noted that the lack of an "active response" from the Board to SSAC advice made it difficult to determine whether SSAC advice was effectively consumed and implemented.

49

⁴⁷ "Review of the ICANN Security and Stability Advisory Committee," JAS Communications, Section 6.1, pp. 16-19 May 15, 2009; Please refer to the SSAC charter detailed in section 1.B of the report.

⁴⁸ Earlier versions of the SSAC Charter included an additional task area that read "To develop a security framework for Internet naming and address allocation services that defines the key focus areas, and identifies where the responsibilities for each area lie. The committee will focus on the operational considerations of critical naming infrastructure."

Additionally, the JAS Review provided feedback on the effectiveness of the SSAC's work products. It was noted that the SSAC's work were of "superb technical quality and almost completely if not entirely free of technical errors." However, JAS raised potential concerns around the informality of the procedures for developing a work product. Various stakeholders throughout the review process indicated that "SSAC products would be substantially improved with additional policy, economic, business, and risk management content." JAS believed that the SSAC "lack[ed] the skill-set to provide significant commentary in these nontechnical areas" into its reports, which was subsequently outlined in JAS' recommendations. The previous RWP considered that the SSAC Charter should not be amended to specifically include nontechnical risks to security and stability.

2. Recommendations and Assessment

As a result of the review, JAS presented the SSAC with 33 recommendations aimed at improving the SSAC. These recommendations and our findings as to their current implementation state can be found in Appendix A. The Appendix outlines the original recommendation, a general sense of the previous Review Work Party's (then called the Review Working Group) agreement or disagreement with the recommendation, the final action to be implemented, a measure of recommendation implementation status by the previous RWP as of March 2011, and a brief assessment of the implementation state.

Additional details on our assessment follow:

Significant portions of the JAS Review recommendations were aimed at improving the SSAC's "Organization Clarity and Charter." Within this set, most recommendations focused on maintaining current processes deemed important by JAS to ensuring efficacy of the SSAC. In large part, these recommendations required little to no action and included recommendations focusing on maintaining independence as an advisory body, maintaining independence from other groups within the ICANN community, and remaining sensitive to political and business issues while providing advice. In large part, the SSAC has been successful at maintaining the current processes outlined in JAS' initial recommendations. There is room for improvement in one suggestion from the JAS Review, to "Whenever possible, provide advance notice in the form of a professional 'heads-up' when uncomfortable situations are reasonably foreseeable. Avoid the perception of 'blindsiding' individuals and entities." A small number of members of the ICANN community reflect they felt blindsided by specific SAC documents, as discussed in Section II.C of this review.

Additionally, the JAS Review recommended that the SSAC Charter be amended in certain situations to provide organizational clarity. In most cases, the SSAC RWP disagreed or partially disagreed with the suggested amendments. For example, the JAS Review suggested that the SSAC Charter be amended to require the SSAC Chair and Liaison to the ICANN Board be separate individuals, and the SSAC Charter also be amended to specifically include non-technical risks to security and stability as within its scope. In these and similar situations, the SSAC RWP disagreed with the recommendation and no actions were immediately taken. In the case of the SSAC Chair and SSAC Liaison, the SSAC later decided to update its Operational Procedures to require these two roles to be separate individuals, regardless.

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⁴⁹ Please refer to JAS recommendations numbered one, two, three, six, seven, and thirteen.

⁵⁰ Please refer to JAS recommendations numbered eight and eleven.

A significant number of recommendations relating to "Formality and Transparency" required changes to SSAC procedures. The JAS Review recommended that the SSAC increase transparency to the ICANN community and public by posting meeting 'minutes' and simple conflict disclosure forms for each member on their website. The SSAC currently does not post minutes from internal meetings publically, but keeps extensive internal meetings and notes on its private Wiki site. The SSAC has recently been discussing if there are appropriate ways to post more such information publically without compromising security. The SSAC has provided additional transparency by its posted work plans and "Activities Updates" from each ICANN meeting. ⁵¹ Additionally, all SSAC members' biographies now include a "Disclosure of Interest" section online. ⁵²

Furthermore, the JAS Review recommended that the SSAC formalize a series of membership and lightweight planning procedures such as including language stating that SSAC membership can be renewed indefinitely, reviewing SSAC memberships every three years such that one-third of membership are up for review every year, allowing for administrative members to be removed via a simple majority vote, and implementing an annual planning process. To date, the SSAC has implemented each of these recommendations. Additional language has been added to the ICANN Bylaws to allow for indefinite membership, that the SSAC would undergo a yearly membership review, and that SSAC appointees can be removed by a majority vote. Finally, the SSAC has implemented a lightweight annual planning process evidenced by new language in the operation procedures and "Current and Future Milestones" presented at yearly ICANN meetings.

In an effort to further increase transparency around conflicts, the JAS Review included a series of recommendations for "Conflicts of Interest." JAS recommended that each SSAC publication include sections allowing for dissenting opinions and recusals from the research.⁵⁸ The SSAC agreed with this recommendation and implemented an "Objections or Withdrawals" section in all subsequent reports. Second, JAS suggested that the SSAC develop and post a conflicts of interest policy similar to the one posted by the ICANN Board, which resulted in additional language to the SSAC Operational Procedures.⁵⁹

Finally, the JAS Review made two recommendations involving financial compensation to SSAC Members from the ICANN Organization. These decisions are made by the ICANN Board and thus

⁵¹ "SSAC Work Plans and Activities", *ICANN*, available at https://www.icann.org/groups/ssac/workplan-activities, accessed on May 24, 2018.

⁵² "Biographies and Statements of Interest of SSAC Members", *ICANN*, available at https://www.icann.org/groups/ssac/biographies-13feb14-en, accessed on May 24, 2018.

⁵³ Please refer to recommendations numbered 21, 22, 24, and 15.

⁵⁴ "The SSAC's chair and members shall be appointed by the Board. SSAC membership appointment shall be for a three-year term... The chair and members may be re-appointed, and there are no limits to the number of terms the chair or members may serve," ICANN Bylaws, Section 12.2.b.ii

⁵⁵ "The SSAC chair shall stagger appointment recommendations so that approximately one-third (1/3) of the membership of the SSAC is considered for appointment or reappointment each year," ICANN Bylaws, Section Article 12, Section 2.b.ii

⁵⁶ "The Board shall also have the power to remove SSAC appointees as recommended by or in consultation with the SSAC." ICANN Bylaws, Article 12, Section 2.b.ii

⁵⁷ "SSAC Operational Procedures Version 5.1," SSAC, February 27, 2018, Section 2.5, pp. 8-20.

⁵⁸ Please refer to recommendations numbered 31 and 32.

⁵⁹ "All members provide independent advice and are expected to call attention to circumstances when the comments they offer are not their own." "If members wish to withdraw support from a document, or register a dissent, these positions are included at the end of the document to which they apply." See Section 1.1 of SSAC Operational Procedures, p. 7.

are to some extent outside of the SSAC's direct control. First, the JAS Review suggested that ICANN reimburse travel expenses for the SSAC Chair to ICANN meetings when appropriate. Currently up to fifteen members of the SSAC can receive travel reimbursements if incurred, one of which can be the SSAC Chair. Second, the JAS Review suggested the ICANN Board study the issue of paying a stipend or honorarium to SSAC Leadership and members. We are unaware of such a study taking place.

With the few noted exceptions, the SSAC has been diligent and effective at implementing the accepted feedback from its prior review.

3. The SSAC's Self-Improvement Outside of Formal Review

22. The SSAC values self-improvement and makes clear efforts to continually improve even outside of the formal review process.

Outside of the implementation of prior review feedback, the SSAC has made continuous efforts to improve its processes. Conversations with members of both the SSAC's incoming and outgoing Administrative Committee have shown that individuals take the continual improvement of the SSAC seriously, and that they were excited to discuss how the SSAC could continue to improve.

The SSAC's belief in continual self-improvement has manifested in multiple ways. As examples:

- The SSAC has updated its Operating Procedures at least five times since its last review. For example, a February 2018 update implemented term limits on the SSAC's Liaison to the ICANN Board.
- The SSAC's Annual Workshop, an in-person meeting of SSAC members, regularly polls attendees and reports back on what was effective or not effective.
- The SSAC RWP has conducted its own internal analysis and Assessment of the SSAC. The RWP is taking steps to refine SSAC processes regardless of this Independent Review.
- The SSAC is in the middle of reviewing and updating its skills matrix to better understand member capabilities and skills on a yearly basis.
- The SSAC is engaged in internal conversation regarding how it might be more transparent to the ICANN community.

III. Next Steps

This assessment report has been published to solicit feedback from the ICANN community. Between June and July of 2018, there will be a public consultation period that will include a webinar and a public participation mailing list. The webinar is set to take place on July 12, 2018 at 20:00 UTC, with additional information available at https://community.icann.org/display/ACCSSAC/Assessment+Report+Webinar. To participate in the webinar and/or the mailing list, please contact mssi-secretariat@icann.org.

We will incorporate feedback into a final report, which will contain both our assessment of the SSAC and our recommendations for improving the operation of the SSAC. A draft final report will be published for public comments on September 12, 2018. The public comment period will last 40 days and close on October 22, 2018. After incorporating comments from the ICANN community, the final report will be published on November 21, 2018.

Appendix A-1 Assessment of JAS Communications' Prior Review and SSAC Implementation

Recommendation 1	Working Group Response	Final Action Required ²	Prior Status (March 2011) ²	Current Status of Final Action
Organizational Clarity and Charter 1. ICANN maintain an advisory body comprised of outside experts on the security and stability of the Internet's unique identifier systems.	Agreement.	None.	No action required.	Maintained.
SSAC maintain its fundamental identity as an Advisory Board chartered by and reporting to the Board of Directors.	Agreement.	None.	No action required.	Maintained.
As SSAC and RSSAC are designed for different purposes, we do not recommend the combination of these bodies.	Agreement.	None.	No action required.	Maintained.
SSAC members should not be required to sign confidentiality or duty of loyalty agreements with ICANN.	Agreement.	None.	No action required.	Maintained.
 The SSAC Charter should be amended to exclude dealings with confidential or proprietary information absent specific guidance from the Board. 	Disagreement.	Staff to incorporate into the SSAC Operational Procedures. The SIC to consider the procedure. The SIC to assess the effectiveness of the rule.	Completed 15 November 2010: Incorporated into the SSAC Operational Procedures in Section 2.2.1 Affirmation of Confidentiality and Non- Disclosure.	Completed; SSAC Operational Procedures § 2.6.1 Affirmation of Confidentiality and Non-Disclosure.
 The SSAC Charter be amended to exclude involvement with or review of internal ICANN operations except as specifically directed by the Board. 	Partial Disagreement.	Board to decide on case-by-case basis. No action required unless requested by the SIC.	No action required.	N/A.
 Correct the perception of SSAC "independence" through improvements in formality, transparency, and increased Board interaction without limiting SSAC members' freedom of expression (specific recommendations in multiple locations). 	Agreement.	None.	No action required.	N/A.
 SSAC Charter be amended to add a requirement that the SSAC Chair and the SSAC Board Liaison are not the same individual. 	Disagreement.	None.	No action required.	Recommendation rejected; however, SSAC later updated operating procedures to state that the SSAC Liaison and SSAC Chair are not the same individual. SSAC Operational Procedures § 2.8.1 Chair and § 2.8.3.1 SSAC Liaison to the ICANN Board of Directors.
 ICANN reimburse travel expenses for the SSAC Chair to ICANN meetings when appropriate. 	Agreement.	No action required unless requested by the SIC.	No action required.	Completed; up to 15 SSAC members can receive reimbursement for travel expenses.
 ICANN Board study the issue of paying a stipend or honorarium to SSAC Leadership and members. 	Agreement.	Staff to present detailed plans. SIC to endorse. Board to adopt.	No action required.	Appears incomplete.
11. The SSAC charter be amended to specifically include non-technical risks to security and stability as within scope.	Disagreement.	None.	No action required.	N/A.
12. SSAC maintain focus on developing and sharing knowledge and understanding of new and evolving risks; SSAC should specifically avoid tactical involvement in response or mitigation activities.	Agreement.	None.	No action required.	Maintained.

Appendix A-2 Assessment of JAS Communications' Prior Review and SSAC Implementation

	Recommendation 1	Working Group Response	Final Action Required ²	Prior Status (March 2011) ²	Current Status of Final Action
133	SSAC Leadership improve sensitivity to political and business issues by heeding the following advice: • Whenever possible, provide advance notice in the form of a professional "heads-up" when uncomfortable situations are reasonably foreseeable. Avoid the perception of "blindsiding" individuals and entities. • Recognize that as an advisory body, SSAC's role is to provide the best advice possible. There is however no requirement for anyone to follow SSAC's advice. • Recognize that ICANN has complex business relationships with many of the same entities SSAC may be issuing recommendations to. At times SSAC guidance may be in conflict with contractual obligations. • SSAC is a very visible and well-respected brand. SSAC is closely watched globally and people pay attention to what SSAC says. To maintain the value of SSAC's brand, SSAC must continue to conduct itself with the highest level of professionalism and integrity.	Agreement.	None.	No action required.	Largely accomplished. In a couple of specific instances, individuals expressed that they did not receive a sufficient "heads up" in regards to SSAC advice.
14.	The SSAC charter be amended giving guidance to focus on issues of strategic and policy importance and to avoid tactical operational issues except as charged by the Board.	Partial Disagreement.	None.	No action required.	N/A.
	rmality and Transparency				
15.	In conjunction with the ICANN Board, staff, and public consultation, SSAC undertake an annual planning process to review the previous year and determine the research and publication agenda, membership strategy, and resource requirements for the coming year. The annual plan will be presented to the Board for approval.	Partial Agreement.	SSAC to develop a lightweight planning process. Staff to incorporate into the SSAC Operational Procedures. The SIC to consider the procedure. The SIC to assess the effectiveness of the rule.	Completed 15 November 2010: Planning is incorporated into the SSAC Operational Procedures in Section 4 SSAC Work Plan and Activity Reporting.	Completed; SSAC Operational Procedures § 2.5 Annual Review Process.
16.	SSAC keep and publish meeting minutes on the SSAC web site in a timely fashion.	Agreement.	SSAC to keep and publish meeting minutes in a timely fashion. Staff to incorporate into the SSAC Operational Procedures. The SIC to consider the procedure. The SIC to assess the effectiveness of the rule.	Completed 15 November 2010: Meeting minutes is incorporated into the SSAC Operational Procedures in Section 5 SSAC Meetings.	The SSAC maintains extensive internal notes, and posts tri-annual public updates on the SSAC website.
17.	SSAC should endeavor to keep their web site current to include work in progress and work planned for the future.	Agreement.	SSAC to keep their web page current to include work in progress and work planned for the future.	Completed February 2010: SSAC Work Plans are posted to the SSAC Web page.	
18.	As a part of SSAC's first annual plan, SSAC revisit task area one in conjunction with ICANN staff. Task area one reads as follows: "Develop a security framework for Internet naming and address allocation services that defines the key focus areas, and identifies where the responsibilities for each area lie."	Agreement.	Board Resolution (2010.28.10.11) directs that the proposed Bylaws amendment should be posted for public comment for a period of no less than 30 days. Posted from 03 November to 02 December. Final Board determination on 18 March 2011. Removal approved.	Completed 18 March 2011: Board Resolution 2011.03.18.06.	Completed; the previous task area is no longer included in the ICANN Bylaws.
19.	SSAC should endeavor to find the best experts globally without regard for geographic proximity. SSAC membership should not be subject to artificial geographic quotas.	Agreement.	None.	No action required.	N/A.
20.	SSAC membership appointments be for a term of three years, renewable by the Board at the recommendation of the SSAC Chair indefinitely.	Agreement.	Change the ICANN Bylaws to include membership appointments for a term of three years, renewable by the Board at the recommendation of the SSAC Chair indefinitely.	Completed 05 August 2010: Board Resolutions 2010.08.05.07 and 2010.08.05.08.	Completed; ICANN Bylaws § 12.2.b.ii.
21.	Do not impose a limit on the number of terms an SSAC member may serve.	Agreement.	Change the ICANN Bylaws to include language that states that SSAC membership is renewable by the Board at the recommendation of the SSAC Chair indefinitely.	Completed 05 August 2010: Board Resolutions 2010.08.05.07 and 2010.08.05.08.	Completed; ICANN Bylaws § 12.2.b.ii.

Appendix A-3 Assessment of JAS Communications' Prior Review and SSAC Implementation

Recommendation 1	Working Group Response	Final Action Required ²	Prior Status (March 2011) ²	Current Status of Final Action
 Stagger SSAC member terms such that roughly 1/3 of the terms are up for renewal each year. 	Agreement.	Change the ICANN Bylaws to include language that states that SSAC member terms shall be staggered such that roughly 1/3 of the terms are up for renewal each year.	Completed 05 August 2010: Board Resolutions 2010.08.05.07 and 2010.08.05.08.	Completed; ICANN Bylaws § 12.2.b.ii.
23. SSAC Board Liaison be permitted a maximum of three consecutive one-year terms.	Disagreement.	No action required unless requested by the SIC.	No action required.	Recommendation rejected; however, SSAC implemented a term limit that the SSAC Liaison to the ICANN Board of Directors can serve for no more than two consecutive three-year terms of office. SSAC Operational Procedures § 2.8.3.1 SSAC Liaison to the ICANN Board of Directors.
 Article XI of the ICANN Bylaws be amended to include a new section discussing the removal of an advisory committee member or chair through a simple majority vote of the Board. 	_	Board Resolution (2010.28.10.11) directs that the proposed Bylaws amendment should be posted for public comment for a period of no less than 30 days. Posted from 03 November to 02 December. Final Board determination on 10 December.	Completed 18 March 2011: Board Resolution 2011.03.18.06.	Completed; ICANN Bylaws § 12.2.b.ii.
 SSAC implement a policy explicitly stating that the SSAC brand (written or verbal) is to be used only on approved work products. 	Partial Agreement.	Staff to incorporate into the SSAC Operational Procedures. The SIC to consider the procedure. The SIC to assess the effectiveness of the rule.	Completed 15 November 2010: Incorporated into the SSAC Operational Procedures in Section 1.1 Relationship to ICANN.	Completed; SSAC Operational Procedures § 1.1 Relationship to ICANN.
26. The SSAC Chair select, implement, and enforce the regular use of a transparent decision making and documentation strategy fitting of the membership and culture of the SSAC.	Agreement.	Chair selects and enforces the regular use of transparent decision-making and a documentation strategy adequate to SSAC culture. Staff to incorporate into the SSAC Operational Procedures. The SIC to consider the procedure. The SIC to assess the effectiveness of the rule.	Completed 15 November 2010: Incorporated into the SSAC Operational Procedures in Section 3 SSAC Publication Procedures and Section 4 SSAC Work Plan and Activity Reporting.	Completed; SSAC Operational Procedures § 4 SSAC Work Plan and Activity Reporting.
 The SSAC formally approve and release all work products pursuant to the chosen decision making and documentation strategy. 	Agreement.	Chair selects and enforces the regular use of transparent decision-making and a documentation strategy adequate to SSAC culture. Staff to incorporate into the SSAC Operational Procedures. The SIC to consider the procedure. The SIC to assess the effectiveness of the rule.	Completed 15 November 2010: Incorporated into the SSAC Operational Procedures in Section 3 SSAC Publication Procedures and Section 4 SSAC Work Plan and Activity Reporting.	Completed; SSAC Operational Procedures § 3 SSAC Publication Procedures.
 SSAC formally and visibly adopt a suitable default confidentiality policy. Other policies are used as necessary by mutual agreement. 	Agreement.	SSAC to develop a confidentiality policy. Staff to incorporate into the SSAC Operational Procedures. The SIC to consider the procedure. The SIC to assess the effectiveness of the rule.	Completed 15 November 2010: Incorporated into the SSAC Operational Procedures in Section 2.2.1 Affirmation of Confidentiality and Non-Disclosure.	Completed; SSAC Operational Procedures § 2.6.1 Affirmation of Confidentiality and Non-Disclosure.
 Utilize the mechanisms recommended in this review, includin the annual planning process, to regularly evaluate SSAC performance against objectives and resource utilization. 	g Partial Agreement.	SSAC produce a report of activities to the Board and for publication.	Completed February 2010: SSAC Work Plans are posted to the SSAC Web page.	Completed; work plans posted to SSAC website three times a year.
30. SSAC publish simple conflict disclosure forms for each SSAC member on its web site. Candidate SSAC members wi be required to provide a complete disclosure to the Board prior to appointment to SSAC, and shall provide an updated disclosure whenever circumstances merit.	Partial Agreement.	SSAC to develop a conflicts of interest policy. Staff to incorporate into the SSAC Operational Procedures. The SIC to consider the procedure. The SIC to assess the effectiveness of the rule.	Completed 15 November 2010: Incorporated into the SSAC Operational Procedures in Section 1.1 Relationship to ICANN.	Completed; SSAC Member biographies include simple conflict disclosures posted to the SSAC website.

Appendix A-4 Assessment of JAS Communications' Prior Review and SSAC Implementation

Recommendation 1	Working Group Response	Final Action Required ²	Prior Status (March 2011) ²	Current Status of Final Action
Conflicts of Interests 31. Each SSAC work product shall include a "Dissents" section. Any SSAC member wishing to dissent shall do so here by name or anonymously. If there are no dissents, the verbiage "No Dissents" shall appear.	Agreement.	SSAC publications include an "Objections or Withdrawals" section.	Completed October 2009: Also incorporated into the SSAC Operational Procedures in Section 3 SSAC Publication Procedures.	Completed; SSAC Operational Procedures § 1.1 Relationship to ICANN.
32. Each SSAC work product shall include a "Recusals" section. The name of any SSAC member who recused him or herself during any part of the preparation and discussion of the specific work product shall appear here. If the individual wishes to remain anonymous, the term "X Recusals" shall appear in this section, where X is the number of anonymous recusals. If there are no recusals, the verbiage "No Recusals" shall appear.	Agreement.	SSAC publications include an "Objections or Withdrawals" section.	Completed October 2009: Also incorporated into the SSAC Operational Procedures in Section 3 SSAC Publication Procedures.	Completed; SSAC Operational Procedures § 1.1 Relationship to ICANN.
 SSAC develop and post a conflicts of interest policy based on the ICANN Board policy. 	Agreement.	SSAC to develop a conflicts of interest policy. Staff to incorporate into the SSAC Operational Procedures. The SIC to consider the procedure. The SIC to assess the effectiveness of the rule.	Completed 15 November 2010: Incorporated into the SSAC Operational Procedures in Section 1.1 Relationship to ICANN.	Completed; SSAC Operational Procedures § 1.1 Relationship to ICANN.

- Notes:
 [1] Recommendations as provided by JAS Communications LLC in "Review of the ICANN Security and Stability Advisory Committee" dated May 15, 2009.
 [2] Action Required and Status as detailed in "SSAC Improvements and Implementation Plan" which summarizes recommendations from JAS Communication and SSAC Review Working Group.