

13 January 2021

Rod Rasmussen
Chair, Security and Stability Advisory Committee (SSAC)

Re: Completion of SSAC Advisories

Dear Rod,

I'm writing to update you and the Security and Stability Advisory Committee (SSAC) on the status of several recently implemented recommendations from SSAC Advisories. At the direction of the ICANN Board, ICANN org has implemented the recommendations listed below. These represented the remaining open recommendations from their respective Advisories. As a result, ICANN org believes that all of the recommendations in the Advisories listed below are now complete and that no further actions are required for any of these Advisories.

On [11 October 2018](#), ICANN org carried out the first rollover of the root zone key signing key (KSK). The project is documented in [Review of the 2018 DNSSEC KSK Rollover](#), published by ICANN's Office of the Chief Technology Officer (OCTO). This successful rollover completed the remaining open recommendations from three SSAC Advisories:

[SAC063: SSAC Advisory on DNSSEC Key Rollover in the Root Zone](#), made five recommendations for actions to be taken by ICANN org related to the first root zone KSK rollover.

[SAC073: SSAC Comments on Root Zone Key Signing Key Rollover Plan](#), contained SSAC's comments on the [draft report](#) of the root KSK rollover Design Team. SAC073 reiterated SSAC's recommendations from SAC063 and called for ICANN org's final plan to directly address each recommendation.

[SAC102: SSAC Comment on the Updated Plan for Continuing the Root KSK Rollover](#), was the response to the ICANN Board's request that SSAC provide advice to the Board on the [Plan for Continuing the Root KSK Rollover](#). SSAC advised continuing with the rollover.

[SAC045: SSAC Invalid Top Level Domain Queries at the Root Level of the Domain Name System](#)

During discussions with OCTO at ICANN66, SSAC confirmed that the recommendations in this Advisory were covered by the Name Collision Analysis Project (NCAP) and could be closed.

SAC062: SSAC Advisory Concerning the Mitigation of Name Collision Risk

SAC062's Recommendation 1 called for ICANN org to work with the wider Internet community, including the Internet Architecture Board (IAB) and the Internet Engineering Task Force (IETF), to identify what strings are appropriate to reserve for private namespace use and what type of private namespace use is appropriate (i.e., at the top-level domain [TLD] level only or at any additional lower level).

Members of OCTO worked diligently in an attempt to update [RFC 6761](#) (Special-Use Domain Names) through the IETF process, but were unable to gain traction in the [DNSOP Working Group](#). OCTO requested closing this recommendation because the wider Internet community was not able to achieve consensus on how to move forward with updating RFC 6761, despite OCTO's efforts.

Recommendations 2 and 3 advised ICANN to consider a series of questions regarding Name Collision, to ensure that ICANN could clearly articulate what choices have been made and why, as part of its decision whether to delegate any TLD on a trial basis and under what circumstances un-delegation of a TLD is the appropriate mitigation for a security or stability issue. These questions were considered by ICANN while developing the [Name Collision Occurrence Management Framework](#) which was [adopted](#) on 20 July 2014 by the ICANN Board's New Generic Top-Level Domain (gTLD) Program Committee (NGCP).

SAC065: SSAC Advisory on DDoS Attacks Leveraging DNS Infrastructure

SAC065's Recommendation 1 called for ICANN to "help facilitate an Internet-wide community effort to reduce the number of open resolvers and networks that allow network spoofing."

ICANN org has long been supportive of community efforts underway to raise visibility of open resolvers, such as those efforts by [the Shadowserver Foundation](#) and the [Open Resolver Project](#).

Regarding explicit efforts to reduce the number of open resolvers, the org has investigated the viability of such a project and determined it would need considerable resource requirements and even then the results would be unlikely to make a material difference. In preparation for the root KSK roll in 2018, ICANN org attempted to reach operators of recursive resolvers believed to be unready for the KSK roll. Determining a resolver's operator and then contacting them proved to be extremely difficult and often unsuccessful. We believe it would be similarly difficult to identify and contact operators of open resolvers.

With respect to facilitating an Internet-wide community effort to reduce the number of networks that allow network spoofing, this activity may be viewed as outside of ICANN's

limited technical remit. The org notes that the Internet Society continues to make great strides with their Mutually Agreed Norms for Routing Security (MANRS) in encouraging network operators to reduce the impact of network spoofing.

Recommendations 2 through 5 were directed at network operators, not ICANN. However, ICANN org supported community efforts with several projects, so that on 12 February 2020, SSAC agreed ICANN org had fulfilled the recommendation to the extent feasible.

[SAC070: SSAC Advisory on the Use of Static TLD / Suffix Lists](#)

Recommendation 1 and 2 addressed the Internet Engineering Task Force (IETF) and on 01 June 2016, ICANN received SSAC's approval of understanding acknowledging there was no action for the Board.

Recommendation 3 advised that to close the knowledge gap between registries and popular Public Suffix List (PSL) maintainers, ICANN and the Mozilla Foundation should collaboratively create informational material that can be given to Top Level Domain (TLD) registry operators about the Mozilla PSL. On 18 May 2020, "[The Public Suffix List: A Guide for TLD Administrators](#)" (OCTO-011) was published. This document was written specifically for TLD registry operators to inform them about the Mozilla PSL.

Recommendation 4 had three (3) parts. 4a advised ICANN to request the [Universal Acceptance Steering Group \(UASG\)](#) encourage the development of software resources enabling or enhancing the effective use of the Mozilla PSL, and with the UASG's consideration of the SSAC advice in its document [UASG007](#), ICANN notified SSAC of this recommendation's closure on 08 August 2017.

Recommendation 4, part 4b and 4c, advised application developers to use a canonical file format and modern authentication protocols as specifications to their work and replace proprietary PSLs with well-known and widely accepted PSL implementations such as the Mozilla PSL and the proposed IANA PSL (part of Recommendation 5). On 30 August 2016, ICANN received SSAC's approval of understanding acknowledging there was no action for the Board.

Recommendation 5 called for the Internet Assigned Numbers Authority (IANA) to host a PSL containing information about the domains within the registries with which IANA has direct communication. As of 1 December 2019, IANA staff began hosting an [authoritative PSL for all TLDs](#) in the root zone. On 12 February 2020, SSAC agreed that recommendation 5 was ready to close.

Recommendation 6 encouraged those parties working on universal acceptance, such as the UASG, to explicitly include the use of a PSL and actions related to a PSL as part of their work. As the UASG considered the SSAC advice in its document [UASG007](#), ICANN notified SSAC of this recommendation's closure on 08 August 2017.

We will continue to work on all remaining open action items within the SSAC advisories approved by the Board. If you have any questions, please do not hesitate to contact me.

Regards, 

Matt Larson
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Office of the CTO
ICANN