



August 27, 2013

Board of Directors
Internet Corporation for Assigned Names and Numbers
12025 Waterfront Drive, Suite 300
Los Angeles, CA 90094-2536

Re: ICANN Proposal to Mitigate Name Collision Risks

Dear Members of the ICANN Board:

This public comment is submitted in response to ICANN's request on August 5, 2013, for community comment on ICANN's proposed efforts to mitigate potential impacts resulting from name collisions as new gTLDs are delegated into the root zone as described in the "New gTLD Collision Risk Mitigation Proposal" published that same day.

As noted in ICANN's New gTLD Collision Risk Mitigation Proposal:

"ICANN's mission and core values call to preserve and enhance the operational stability, reliability, security, and global interoperability of the Internet's system of unique identifiers (names, IP numbers and protocol parameters). In pursuing these goals and following the direction of its Board of Directors as well as the advice of the Security and Stability Advisory Committee, ICANN commissioned a study on the potential security impacts of the applied-for new gTLD strings. The study was to consider whether name collisions might occur between applied-for new gTLD strings and non-delegated TLDs that may be in use in private namespaces. The study was also to review the possibility of name collisions arising from the use of X.509 digital certificates."

"ICANN ... has undertaken a number of measures to assess and, where necessary, mitigate potential security and stability risks associated with the launch of new gTLDs. ICANN is proposing for public comment a proposal to mitigate potential risks of name collisions for new gTLDs as described in the "New gTLD Collision Risk Mitigation Proposal."

We fully support the ICANN Board's commissioning of the study by Interisle Consulting Group, LLC, which was subsequently published in their report titled, "Name Collision in the DNS." The ICANN Board's commissioning of this study, and the Interisle Report published as a

result, are steps in the right direction. The ICANN proposal, however, is limited to a proposal to mitigate the risks of some aspects of name collisions for new gTLDs.

ICANN's Security and Stability Advisory Committee (SSAC), however, has made a number of specific recommendations since 2010 in connection with more broadly preserving the security, stability and resiliency of the Domain Name System (DNS) in contemplation of the delegation of new gTLDs into the root zone. The ICANN Board is no doubt well aware of these important but outstanding SSAC recommendations, which SSAC has advised should be addressed before the delegation of any new gTLDs and which SSAC recently noted remain "stubbornly unresolved."¹

In the hope of facilitating the resolution of these outstanding issues, we respectfully submit for your consideration the outstanding ICANN SSAC recommendations since 2010, which are as follows:²

1. **SAC045:** In November 2010, ICANN's SSAC published a report, SAC045, with recommendations regarding naming collisions. SAC045 was co-authored by ICANN's current Board Chair, Dr. Stephen D. Crocker, both a technical expert contributor to SSAC, as well as SSAC's chairman at the time. SAC045 included, among others, recommendations to study the invalid TLD query data at the root level and highlighted the necessity to contact and forewarn organizations that might be impacted "such that they may eliminate or mitigate such queries before they induce referrals" (i.e., before new TLDs are delegated).

In September 2012, the ICANN Board resolved in part to "task staff with formulating and executing on one or more studies, as needed." Subsequently, in May 2013, the ICANN Board resolved to conduct one such study and Interisle Consulting was commissioned to perform it. In August 2013, ICANN published the Interisle naming collision study as noted above, which, although insufficient in some important respects,³ validated the risks associated with naming collisions identified in SAC045 published in 2010, and also reflected the essence of what the expert study team intended by "Effects of root zone changes on the Internet" in the earlier 2009 "Scaling the Root" study (see footnote 1).

¹ See SAC059, "SSAC Letter to the ICANN Board Regarding Interdisciplinary Studies," dated April 18, 2013, p. 5.

² We note that there are additional germane recommendations to ICANN, which include those conveyed in the National Research Council's "Signposts In Cyberspace" in 2005, as well as in an ICANN commissioned expert study team on this topic in a 2009 paper entitled "Scaling the Root."

³ The study authors noted during the presentation in Durban that "[i]t would definitely be better if we had a dataset that spanned a much, much longer period of time" and "a better coverage of time would give a better read of what's actually happening."

ICANN's delay in partially addressing the original SAC045 recommendations (by the Interisle study) for over three years is unfortunate to be sure, as is the fact that even while anticipated and reflected in the 2009 study, consumer impacts were deemed out of scope of the Scaling the Root study. In the words of ICANN Board Chair Dr. Stephen Crocker during the ATRT2 discussion in Durban, it is "awkward" now to have to deal with these issues. That said, the SAC045 recommendations addressed by Interisle constitute just one aspect of several important SSAC recommendations, some of which have yet to be addressed.

2. **SAC046:** Published in December 2010, SAC046 contained four recommendations. The final two, Recommendations Nos. 4 and 5, have not been completed by ICANN.

Recommendation No. 4 advised ICANN to "update its 'Plan for Enhancing Internet Security, Stability and Resiliency,' to include actual measurement, monitoring, and data-sharing capability of root zone performance...."

No action was taken on this recommendation until September 2012 when the ICANN Board resolved to ask the Root Server System Advisory Committee (RSSAC) for its advice as to this recommendation. To our knowledge, no such RSSAC advice has been published and ICANN has not updated its Plan for Enhancing Internet Security, Stability and Resiliency in the manner recommended by SSAC. To our knowledge, ICANN has not developed or implemented a plan to create a measurement, monitoring and data sharing capability of root zone performance. SSAC advised ICANN that these steps were necessary before launching a single new gTLD. A comprehensive study of root server system query patterns could have easily been conducted had these measurement and monitoring apparatuses been in place along with a true data sharing capability when the Interisle study was conducted, or earlier when each applied-for string was requested, with broader baselines of historical activity. We note that the authors of the Interisle name collision report itself have highlighted the deficiencies in the data they were provided.

We respectfully request that the ICANN Board review this recommendation and ensure appropriate action is taken. We strongly concur with this recommendation, and have been an advocate for this activity within the RSSAC, SSAC, as well as in our role as both a root operator and Root Zone Maintainer. Given ICANN's mission, and given its unique position, we believe that ICANN can and must do more to lead this effort beyond the administration of the L root. We have and will continue to pledge our support to ICANN as it does so.

Recommendation No. 5 from SAC046 advised ICANN to "commission and incent interdisciplinary studies of security and stability implications from expanding the root zone"

ICANN took no action on this recommendation from December 2010 until September 2012, when ICANN's Board resolved to seek further advice from SSAC on how the interdisciplinary studies "should be carried out and whom else should be consulted."

3. SAC059 and Recommendation No. 5: In April 2013, SSAC responded to ICANN's request for further advice by publishing SAC059, which detailed:

- The composition of an interdisciplinary study team,
- The areas of inquiry, and
- How the study was to be performed.

To our knowledge, ICANN has not taken any additional steps to convene this interdisciplinary study team in the manner SSAC recommended. SSAC advised ICANN that this study was necessary before launching a single new gTLD.

We respectfully request that the ICANN Board review this recommendation and ensure appropriate action is taken. We strongly concur with this recommendation.

We respectfully submit that the Interisle Naming Collision Study, while a valuable, albeit late, contribution, does not satisfy Recommendation 4 or Recommendation 5 from SAC046 and addresses in only a limited fashion the recommendations in SAC045.

In keeping with ICANN's mission and core values to preserve and enhance the operational stability, reliability, security and global interoperability of the Internet's system of unique identifiers (names, IP numbers and protocol parameters), and consistent with the multi-stakeholder model, we respectfully request that the ICANN Board review and evaluate these issues and commission the necessary work, as appropriate, to ensure that SSAC's recommendations are finally addressed to its satisfaction before ICANN moves forward with the delegation of new gTLDs. If the ICANN Board elects to reject these long-standing SSAC recommendations, it should provide the community a clear rationale for that decision.

Sincerely,



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