Dear Tripti, Brad,

We are writing to you in our capacity as co-chairs of the GNSO's Policy Development Process on New gTLD Subsequent Procedures. One of the key principles implemented by ICANN in the 2012 New gTLD Program was a commitment to delegate no more than 1,000 new top-level gTLDs per year. This restriction was based on work performed by ICANN Staff[1] and confirmed by reports from the Root Scale Study Team for the Root Scaling Steering Group[2] and the Security, Stability and Advisory Committee[3] between 2009 and 2010. At the time, it was estimated that ICANN would receive a maximum of 500 new gTLD applications[4].

As you are aware, the New gTLD Program started in 2012 and resulted in the addition of more than 1,100 new gTLDs to the root zone since October 2013. Following previous advisories from the Governmental Advisory Committee and its Board of Directors, ICANN commissioned an empirical study into the technical impact of the New gTLD Program on the security and stability of the root DNS system, which was conducted by a consortium consisting of TNO, SIDN and NLnet Labs. The study's primary research question was: did the delegation of new gTLDs degrade the stability or security of the root DNS system? Based on the analysis carried out for this research question, our corresponding research question is: Can we expect that the delegation of more new gTLDs, or at a greater rate, will degrade the stability or security of the root DNS system in the future?

A Final Report entitled "Continuous Data-driven Analysis of Root Stability (CDAR) was published on in March 2017.[5]   This report concluded that:

> *. . . we did not observe a degradation of the security and stability of the root DNS system as a result of the delegation of new gTLDs. Moreover, presuming that the evolution of new gTLD delegations continues to exhibit the pattern we observed since the New gTLD Program's first delegations in October 2013, we see no signs that the delegation of more new gTLDs in itself will degrade the stability or security of the root DNS system in the near future.*

> *The absence of an observed degradation of the security and stability of the root DNS system is no reason to be less cautious about possible future impact of the New gTLD Program. In particular, we recommend the New gTLD Program to continue enforcing a controlled rate of delegating new gTLDs, which is one of its current preventive root zone scaling measures.*

Although we acknowledge that ICANN has yet to exceed (or even come close to exceeding) the maximum delegation rate for new gTLDs, we believe (and hope) that our work, combined with improved operational efficiencies employed by ICANN for the next new gTLD

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[1] See : https://archive.icann.org/en/topics/new-gtlds/summary-of-impact-root-zone-scaling-06oct10-en.pdf and https://archive.icann.org/en/topics/new-gtlds/delegation-rate-scenarios-new-gtlds-06oct10-en.pdf
[2] https://www.icann.org/en/system/files/files/root-scaling-study-report-31aug09-en.pdf
[3] https://www.icann.org/en/system/files/files/sac-046-en.pdf
[4] In actuality more than 1900 applications were filed.
[5] https://www.icann.org/en/system/files/files/cdar-root-stability-final-08mar17-en.pdf

application window will enable the evaluation and ultimately delegation of many more additional new gTLDs and at a quicker pace. In addition, the Subsequent Procedures PDP Working Group is currently exploring different fee structures, as well as a more streamlined technical evaluation process whereby registry service providers could be approved in advance (or after being evaluated once) without undergoing an evaluation for each application it supports, which may result in lower application fees and quicker approval timelines.[6] We have also received anecdotal evidence that the number of applications that ICANN may receive in the next application window may be even[7] higher than the number of applications received in 2012; possibly an order of magnitude higher.

There is no way to know with certainty how many applications ICANN will receive for new gTLDs. That said, it is important to consider the impact of larger numbers of new gTLD applications. For example, what would happen if ICANN were to receive 10,000 or even 25,000 new gTLD applications. Although one solution could be limiting the number of applications per year (or per application window) to guarantee staying within a maximum delegation limit, it does not appear from discussions within the Working Group that placing such limits are desirable to WG members. In addition, it is not reasonable for ICANN to tell applicants that they would not be able to delegate their TLDs for 10 years (in the case of 10,000 received applications) or 25 years (in the case of 25,000 received applications).

In light of all of the above, we are seeking input from the community, including the RSSAC, SSAC, ICANN's Office of the Chief Technology Officer (OCTO), and GDD leadership, on whether the limitations on delegations per annum could be revisited given the results of the CDAR study and if so, what guidance can be provided to maintain the security and stability of the root. We acknowledge the challenges of predicting impact and therefore welcome suggestions on things that might mitigate potential issues in the event we increase the maximum annual delegation rate.

We would also appreciate input on the total number of TLDs that could be delegated without negative impact to root server performance. In a 2009 study[8], the then-deployed software was seen as being capable of handling at least 100,000 TLDs[9]. We expect that improvements in DNS software, RAM sizes, and processor speeds will likely result in a higher capacity if retested under current circumstances.

We would appreciate feedback on this issue by January 31, 2018.   If you have any questions or comments, please do not hesitate to contact us. In addition, if SSAC and/or

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[6] Please note that these are just topics that are being explored at this stage. As such, we do not mean to imply that these proposals will ultimately gain consensus or be implemented. Rather they are provided for illustrative purposes.

[7] There is absolutely no way to confirm the number of anticipated applications, but numbers such as 10,000 or 25,000 have been mentioned especially when considering brand / closed registries.

[8] See: https://www.icann.org/en/system/files/files/root-zone-augementation-analysis-17sep09-en.pdf

[9] See Appendix A here: http://newgtlds.icann.org/en/about/historical-documentation/root-scaling-27jun12-en.pdf

RSSAC believes that OCTO could help provide data or answer either of these questions, please make us and OCTO aware as soon as possible.

Best Regards,

Avri Doria and Jeff Neuman
Co-Chairs, PDP on New gTLD Subsequent Procedures Working Group