

Technical Committee (BTC) Activity Report – 1 July through 31 December

Section I – Completed Activities

Item	Description	Committee Completion Date	Accomplishments/Outcome
BTC to received continuous update from E&IT about threats/risks on ICANN infrastructure and proposed mitigation measures.	ICANN Chief Information Officer (CIO) to prepare and present written briefing to the Committee about ICANN infrastructure security assessment including recent Adobe Connect incident. CIO to provide regular update on incidents and mitigation measures.	Recurring Activity <i>Update provided on 14 September 2018 and 03 December 2018</i>	CIO has presented the outcome of 2018 cybersecurity external assessment which provided the committee insight on current state of ICANN infrastructure security. He gave an update on steps taken over the years to harden the organization's system's security. He informed the committee that they are planning to move from CIS20 Cybersecurity assessment framework to NIST framework in 2019.
Root Server Strategy	The Office of the CTO (OCTO) to propose a strategy to improve the robustness and deployment landscape of L-root, including security risk assessment and proposed mitigation measure.	19 September 2018	OCTO has presented a framework for root server strategy focusing on security risk mitigation to the BTC and to the Board during its meeting on September 19. The Board approved the draft strategy document in its resolution [2018.09.16.10]
KSK rollover plan	BTC to assess response from SSAC, RSSAC and RZERC on plan to roll the DNSSEC KSK and work with OCTO to provide the Board with the final rollover plan including supporting rationale for rolling the KSK on October 17 th , 2018 as planned. Board to pass a resolution to proceed with the KSK rollover.	19 September 2018	OCTO has submitted a full updated plan and supporting rationale for rolling the DNSSEC KSK. The Board discussed and approved the plan in Resolution [2018.09.16.11]
Engage with SSAC to assess and review NCAP study.	OCTO to appoint a consultant to work with SSAC NCAP admin committee to present a final proposal to the BTC for assessment and final approval.	20 October 2018	A revised version of the NCAP proposal was submitted to the BTC for assessment. The new proposal currently under review by the BTC.
BTC Workplan	The BTC to develop a formal workplan for 2019 activities and align its work process with other Board committees.	03 December 2018	The BTC has adopted a formal work plan and meeting schedule for 2019.

Section II – Activity in Progress

Item	Description	Target Completion date	Accomplishments/Outcome
Root Zone Management System Revision Studies	OCTO to conduct analyses of revising the RZMS through two studies, which would be the subject of RFPs. The first study would evaluate the process as it is today and provide possible recommendations on incremental changes that could be made to make the process more robust. The second study would not be limited to making incremental changes to the current approach but would instead consider potential new approaches for making changes to the content of the root zone.	Q4 2019	An RFP for the first study is in the final stages of preparation and will be opened early Q1 2019. A design team will be formed in Q1 2019 to refine the scope of the second study as input to an RFP process to occur later in 2019
DAAR: Spam as an indicator of DNS abuse	OCTO to prepare a briefing addressing the use of spam as an indicator of DNS abuse.	As yet unassigned.	Research to collect data related to spam as an indicator of DNS abuse initiated.
Technical Experts Group (TEG) and BTC	OCTO to prepare a proposal on how to integrate the TEG meeting into the public portion of the Board Technical Committee meeting	30 January 2019	Drafted an interaction framework for the group up for discussion
RSSAC37 & 38	BTC in collaboration with ORG to complete the feasibility and implementation plan of the two advises through the ARR process.	30 June 2019	The outcome of feasibility assessment was presented to the BTC on 3 December 2018 and shared with the RSSAC. ORG is working on the implementation to be presented to the BTC in January including feedback from RSSAC on feasibility assessment.
NCAP Study	The BTC to make a final recommendation to the Board on next step of the NCAP proposal.	15 January 2019 Q1 2019	Working with Finance and BFC to identify options for funding of all proposed NCAP studies and the impacts of the different options.

Section III: Appendix – Resolutions Recommended by the BTC

PROPOSED RESOLUTIONS:

Root Server Strategy [2018.09.16.10]

Whereas, ICANN's present approach of deploying a large number of individual servers ("L-Singles") and a small number of larger, multi-server installations ("L-Clusters") has, to date, been an adequate defense against attacks on the Root Server System.

Whereas, the Root Server System as currently deployed is seen by many within the technical community as at risk of being unable to keep pace with the growth in attack capacity and thus, is increasingly vulnerable to attack traffic whether launched by malicious entities or as a result of misconfiguration, misuse, or bugs.

Whereas, a successful attack against the Root Server System would pose a serious risk to the security and stability of the DNS and pose a potentially existential risk to ICANN org, as the facilitator of the coordination of operation and evolution of the DNS root server system.

Whereas, a comprehensive strategy intended to reduce the effects of the attacks against the Root Server System should take into consideration multiple approaches that leverage and enhance existing root server operator practices, integrate new technological advances and methodologies, as well as increase observation and monitoring of the system as a whole.

Resolved (2018.09.16.10), that the Board instructs the ICANN org as the operator of the ICANN Managed Root Server/L-Root (IMRS) to work with the Community to finalize a strategy to reduce effects of attacks on the IMRS and, once finalized, directs the CEO to begin implementation of that strategy by developing a project plan with associated timelines and potential expenditures for subsequent Board review and approval.

Proceeding with KSK Rollover [2018.09.16.11]

Whereas, ICANN org committed to roll the KSK "after 5 years of operation" as documented in the "DNSSEC Practice Statement for the Root Zone KSK Operator".

Whereas, ICANN org solicited a design team to prepare a full set of plans in order to implement the KSK roll.

Whereas, as part of the implementation of that plan, ICANN org collected certain data that raised questions relating to the impact of the KSK rollover on end users.

Whereas, ICANN org suspended the rollover on 27 September 2017 in order to understand the data being collected.

Whereas, ICANN org, in consultation with members of the DNS technical community, gained further understanding of the data that had been collected.

Whereas, ICANN org extrapolated the likely impact of the KSK roll.

Whereas, ICANN org has updated the full plan documents and created "Updated Plan for Continuing the Root KSK Rollover".

Whereas, the Board has received input from RSSAC, RZERC, and SSAC on the plan documents and that input indicates that those bodies found no reason to not continue with the updated plan for the KSK rollover and that portions of the community, in particular, those in the DNS technical community, have expressed concerns about the impact of further postponing the KSK rollover, specifically that: not moving forward with the KSK rollover would not be in keeping with the consensus of community expectations; is not supported by data obtained to date; could result in confusion about or loss of community attention to ICANN org's DNSSEC messaging; could encourage a belief that the KSK will never be rolled resulting in a risk of the current KSK getting embedded in hard-to-change system; and/or reduce confidence in DNSSEC as a trustworthy system.



Whereas, the anticipated number of end users negatively impacted by the KSK rollover is significantly less than the community-specified threshold of 0.5% of end users, and the identification and remediation of that negative impact should be straightforward for those affected.

Whereas, ICANN believes that the benefits to the community of proceeding with the rollover in a timely fashion outweigh the difficult to quantify risks.

Resolved (2018.09.16.11), that the Board instructs ICANN org to proceed with the KSK rollover as described in the "Updated Plan for Continuing the Root KSK Rollover".