Source	Study Name	Topic	Comment	Response	Change
OCTO	Case Study	question re: root cause	"Case Study" does not appear to be related to understanding the root cause of most name collisions. If this case study is meant to be related to that goal, the document should be revised with an explicit description of how the case study relates. OCTO notes that such a relationship would be surprising because queries seen at the root servers cannot be easily traced back to the original stub resolver that caused the query in the recursive resolver. OCTO's understanding is that, without knowing the original context of a query at the stub resolver on the originating system, the root cause of a collision cannot be determined.	The Perspective Study was not focused on the root cause of name collision queries. That work is performed by the NCAP technical investigator and will be part of the Study 2 final report.	No change required
OCTO	Perspective Study	question re: root cause; question re: resolver data	Similarly, "Perspective Study" does not appear to be related to understanding the root cause of most name collisions. If this perspective study is meant to be related to that goal, the document should be revised with an explicit description of how the perspective study relates. OCTO again notes that such a relationship would be surprising because queries seen at the root servers cannot be easily traced back to the original stub resolver that caused the query in the recursive resolver, and the original stub resolver context is required to determine root cause.	The Perspective Study was not focused on the root cause of name collision queries. That work is performed by the NCAP technical investigator and will be part of the Study 2 final report.	No change required
OCTO	Both	question re: root cause; question re: resolver data	The root cause of a query could potentially be determined by investigating the circumstances at the stub resolver that caused the query to be sent to the recursive resolver. OCTO is not aware of any public resolver that has attempted such a root cause investigation. Indeed, such an investigation would violate the stated public privacy policies of some of the more popular public resolvers. Even if a public resolver had a policy of logging some queries, it would be stymied because many queries are sent through forwarders. We are aware that many public resolvers are unwilling to share data related to stub resolvers for privacy reasons, so it is not surprising that so little public resolver data was available for the study. If the NCAP DG believes that recursive resolver data is important to research name collision root causes, we suggest that the group work to obtain such data from sources other than public resolvers. For example, could the organizations employing members of the NCAP DG contribute recursive resolver data?	One additional commercial recursive resolver was able to provide data to NCAP for analysis. This data confirmed the findings of the public recursive resolver and are incorporated into the revised Perspective Study.	**Additional text added to recursive resolver section in Perspective Study.**
OCTO	Both	question re: root cause	Neither document hints at any method to understand the root cause of most name collisions. OCTO assumes that the NCAP Discussion Group will propose one or more methods in its final report for Study 2, or will say that such methods do not exist. Given the extremely large set of potential name collisions shown in these two documents, OCTO is particularly interested in descriptions of how such methods would find the root causes for many, much less "most", name collisions.	The Perspective Study was not focused on the root cause of name collision queries. That work is performed by the NCAP technical investigator and will be part of the Study 2 final report.	No change required
OCTO	Case Study	question re: impact of queries	"Case Study" shows an increasing volume of queries for undelegated TLDs over time, but does not quantify any significant impact of this increased volume on the root server system (RSS). The same is true for the other measurements in the case study: there is increasing diversity among many aspects, but the case study does not quantify any significant impact of any of them on the RSS. The "impact" listed in the goal might be on some other participant in the DNS, such as end users or recursive resolvers, but the query volume and increasing diversity shown in "Case Study" don't appear to relate to those participants either. The document should be revised to specify which, if any, of these increases has a significant impact on the RSS, on end users, or on resolvers, by showing the significance.	Impact to the RSS is not within the remit or technical concerns of NCAP. It is important to distinguish between RSS load concerns and the critical diagnositic measurements of query volume and source diversity load as they relate to name collisions.	**Additional text to be added to the Introduction making clear that impact on the RSS is out of scope.**
OCTO	Case Study	Unsupported conclusion	Section 5.9 states, "The study has shown very clear evidence of "impact", e.g., a tremendous amount of query traffic would be affected by a delegation of .CORP, .HOME, and .MAIL." This statement is not supported by any evidence in the document, and in fact may be contradicted by recent delegations of new gTLDs. For example, an informal review of IMRS traffic saw very little impact to the RSS after .MUSIC was delegated in November 2021, and there has been no public indication of any impact on resolvers by the delegation. Given this finding by OCTO, this document should be updated with the "very clear evidence" or the statement should be removed.	The use of the word 'impact' should be applied to the context of name collisions and associated name collision risk. The Case Study was not focused on the impact (i.e., load) placed on the RSS or other components of the DNS ecosystem.	No change required
OCTO	Perspective Study	Unsupported conclusion	Similarly, "Perspective Study" does not quantify any significant impact of undelegated TLDs on the RSS, on end users, or on resolvers. In the section comparing the names seen at a public recursive resolver and the RSS, there is also no quantitative analysis of the impact of the rate or diversity of undelegated TLDs on this unnamed public resolver or any other resolvers. The document should be revised to specify which, if any, of the data shows any significant impact on the public resolver used or other resolvers.	The use of the word 'impact' should be applied to the context of name collisions and associated name collision risk. The Case Study was not focused on the impact (i.e., load) placed on the RSS or other components of the DNS ecosystem.	No change required
OCTO	Case Study	Unsupported conclusion	Unsupported conclusion: Executive Summary: "These facts suggest that challenges relating to impact and mitigation are also increasing." None of the increases in the case study are shown to be challenges.	Per ICANN's Review of the 2018 DNSSEC KSK Rollover document, ICANN acknowledge's the challenges and difficulties associated with identifying everyone who needed to be aware or is impacted - a very analogous example of name collisions. We think it a straightforward step from there to understand that higher query volume and higher source diversity would therefore convey additional mitigation and remediation challenges.	No change required
OCTO	Case Study	Unsupported conclusion	Section 5.1: "This is because the expectation of negative responses is high, and the mitigation across multiple services, networks, and users is increasingly complex to perform." The case study has no qualitative or quantitative review of controlled interruption, the form of mitigation used on over 1000 gTLDs since 2013. Without such review, the phrase "increasingly complex" cannot be supported.	This comment seems to be at odds with the actions taken by ICANN with regards to CORP/HOME/MAIL. Those strings were placed into a hold status based explicitly on measurements showing their heightened levels of queries across multiple services, networks, etc.	No change required
OCTO	Case Study	Unsupported conclusion	Section 5.2: "The sheer volume of query traffic for the undelegated names under study is alarming in itself, ...". The case study does not support any reason for alarm. If the RSOs indicate any concern, that should be reflected in the document; otherwise, the document needs to show why the impact is significant to resolvers or users.	Impact to the RSS is not within the remit or technical concerns of NCAP. It is important to distinguish between RSS load concerns and the critical diagnositic measurements of query volume and source diversity load as they relate to name collisions.	**Additional text to be added to the Introduction making clear that impact on the RSS is out of scope.**
OCTO	Case Study	Unsupported conclusion	Section 5.3: "This finding highlights the challenge associated with mitigation since diversity complicates mitigation coordination across an increasing number of parties (i.e. networks, vendors, applications, and users)." Without a qualitative or quantitative review of the current use of controlled interruption, the word "challenge" cannot be supported.	This document was not scoped to evaluate controlled interruption but rather to evaluate the challenges or difficulty associated with specific non-existent TLDs based on DNS telemetry data. Those metrics are similar to those that ICANN used to establish the risk/challenge/difficulty of not delegating CORP/HOME/MAIL.	No change required

Source	Study Name	Topic	Comment	Response	Change
OCTO	Case Study	Unsupported conclusion	Section 5.4: “This finding also highlights the challenge associated with mitigation since diversity complicates mitigation coordination across more systems, applications, etc.”. Without a qualitative or quantitative review of the current use of controlled interruption, the word “challenge” cannot be supported.	This document was not scoped to evaluate controlled interruption but rather to evaluate the challenges or difficulty associated with specific non-existent TLDs based on DNS telemetry data. Those metrics are similar to those that ICANN used to establish the risk/challenge/difficulty of not delegating CORP/HOME/MAIL.	No change required
OCTO	Case Study	Unsupported conclusion	Section 5.5: “This information can also help construct mitigation strategies.” This statement is unsupported because no mitigation strategies are suggested here.	Acknowledged. Some simple mitigation strategies that highlight the data will be suggested here.	**TO DO: Add more text**
OCTO	Case Study	Unsupported conclusion	Section 5.8: “This diversity poses the greatest challenge for mitigation since there are potentially countless ramifications to be identified and resolved.” Without a qualitative or quantitative review of the current use of controlled interruption, the word “challenge” cannot be supported.	This document was not scoped to evaluate controlled interruption but rather to evaluate the challenges or difficulty associated with specific non-existent TLDs based on DNS telemetry data. Those metrics are similar to those that ICANN used to establish the risk/challenge/difficulty of not delegating CORP/HOME/MAIL.	No change required
OCTO	Case Study	Unsupported conclusion	Section 6: “The analysis illuminates the significant impact delegations would mean, and presents some insight into the potential harm that may result.” The analysis does not show how much significance the impact of delegations has on the RSS, on end users, or on resolvers.	Impact to the RSS is not within the remit or technical concerns of NCAP. It is important to distinguish between RSS load concerns and the critical diagnositic measurements of query volume and source diversity load as they relate to name collisions.	Additional text to be added to the Introduction making clear that impact on the RSS is out of scope.
OCTO	Perspective Study	Unsupported conclusion	Executive Summary: “These findings are significant in terms of how future guidance and advice should be applied to name collision risk assessments.” The study has no risk analysis or data about delegating, or continuing to not delegate, currently undelegated TLDs.	Acknowledged. Additional text was added for clarification.	**Additional text added to exec summary.**
OCTO	Perspective Study	Unsupported conclusion	Section titled “Non-Existent TLDs with Highest Query Count”: “This helps support and inform the DNS community that the publication of top-N strings could be beneficial to future TLD applicants.” The study does not discuss future TLD applicants, much less any possible benefits to them of knowing which strings might have more or fewer collisions seen in the RSS.	Acknowledged. Additional text was added for clarification. We appreciate that ICANN OCTO has already implemented a new Top-N list of non-existent TLDs per the discussion during the NCAP DG calls. [1] https://ithi.research.icann.org/rarends/	**Additional text added to exec summary.**
OCTO	Perspective Study	Unsupported conclusion	Section titled “Key Findings”: “The two studies in this analysis provide two key findings that will help the NCAP provide guidance and advice to ICANN as to how future risk assessments of name collision strings should be evaluated.” The study does not discuss any risks of current or future name collisions. The implications listed in the rest of this section have the same problem with assuming that any risk has been shown or needs to be studied.	Acknowledged; however, the scope of this document was not to document and establish current or future name collision risks. Those have already been established and cataloged in the NCAP Study 1 Report.	No change required
RySG	Case Study		The RySG wishes to strongly support the conclusion in the Case Study that the work on name collisions by Interisle and JAS is still relevant today. The Case Study notes that “[w] hile there are notable differences in data sets and anomalies, both the measured potential impact and projected harm essentially agree between the earlier studies and today” (p29). In other words, evolution in DNS traffic has not altered to a detectable level whether there is a name collision risk or not.	Thank you for your comments.	No change required
RySG	General feedback	General feedback - Controlled Interruption	The RySG is of the view that caution should be taken when determining whether to make material alterations to controlled interruption. In this instance there is data that supports the maintenance of the existing procedures. These studies indicate that in most instances the existing controlled interruption process is an effective tool, but there may be some small improvements that could potentially be adopted to improve controlled interruption in light of changing traffic patterns. The RySG supports retaining controlled interruption, recognising it is an effective tool for identifying name collisions. The RySG encourages the NCAP Discussion Group, and ultimately the Board, to resist the urge to let perfect be the enemy of the good by adding unnecessary complexity to controlled interruption procedures and creating a new process. The RySG is supportive of the NCAP Discussion Group continuing with the hypothesis that "controlled interruption is effective" based on the data.	Thank you for your comments.	No change required
ISPCP	General feedback		For this reason, and putting aside any questions, comments, or concerns around NCAP Study 1, we encourage the NCAP team to take as collaborative approach as possible in seeking to definitively address the goals of NCAP Study 2. It is important to look beyond the Case Studies listed, and to learn from the experiences of those who operate the DNS root and related resolvers. OCTO and the ICANN contracted parties should be advised, as should the ISPs who represent the world’s largest and most trafficked DNS resolvers. Please do not hesitate to reach out to ensure that the important work you are doing will lead to the most credible, collaborative results.	Thank you for your comments.	No change required