

ICANN | SPECIFIC REVIEWS

Informing Board Action on Competition, Consumer Trust, and Consumer Choice Review (CCT) Pending Recommendations

Status of This Document

This document is a repository of information requested by the ICANN Board to inform its action on the seventeen (2, 3, 4, 5, 6, 7, 8, 11, 13, 14, 15, 16, 18, 20, 23, 24, 26) Competition, Consumer Trust, and Consumer Choice Review Team (CCT-RT) Final Recommendations that it resolved to place in pending status (in whole or in part).

The document serves to inform the Board on potential implementation paths, and resources needed to complete implementation. Considerations pertaining to resources should not be construed as committed resources. Resources required are subject to prioritisation.

Preamble

On 1 March 2019, the Board [resolved](#) (2019.03.01.04) to place 17 recommendations into pending status (in whole or in part) and committed to take further action on these recommendations subsequent to the completion of intermediate steps, as identified in the [1 March 2019 Scorecard](#). The Board directed ICANN org to provide relevant information, as requested in the Scorecard, and advise if additional time is needed.

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1. Executive Summary

The Competition, Consumer Trust, and Consumer Choice Review Team (CCT-RT) submitted its Final Report - <https://www.icann.org/en/system/files/files/cct-final-08sep18-en.pdf> - and Recommendations - <https://www.icann.org/en/system/files/files/cct-final-recs-08sep18-en.pdf> - to the ICANN Board of Directors on 8 September 2018.

On 1 March 2019, the ICANN Board took action on the Final Recommendations produced by the CCT-RT - see <https://www.icann.org/resources/board-material/resolutions-2019-03-01-en>.

Per ICANN Bylaws, the ICANN Board carefully considered how to best address each of the recommendations, and decided on three categories of action: accepted, pending, and passing through to different parts of the community, as documented in a detailed Scorecard accompanying the Board resolution - <https://www.icann.org/en/system/files/files/resolutions-final-cct-recs-scorecard-01mar19-en.pdf>

The information presented in this document is in furtherance of Board resolution 2019.03.01.04 to place CCT recommendations 2, 3, 4, 5, 6, 7, 8, 11, 13, 14, 15, 16, 18, 20, 23, 24, 26 in pending status, in whole or in part. It compiles information requested by the ICANN Board to inform its action on eleven (11) pending recommendations and provides a status update on six (6) pending recommendations for which additional time is needed.

This document serves to inform the Board on potential implementation paths, and resources needed to complete implementation. Considerations pertaining to resources should not be construed as committed resources. Resources required to implement recommendations are subject to prioritization.

The information provided in the “Cost/Resource” sections in this document should be understood as a preliminary indication of potential and high-level estimation of direct resources that could be required to perform a set of activities that have yet to be further defined. The resources mentioned are generally only the “direct” resources potentially necessary, with very rough estimates of costs where relevant. The support necessary to several of the activities encompassed has not been evaluated and taken into account. In addition, costs estimates were provided by the subject matter expert without any research and validation from relevant support functions (like Finance, Procurement, and others as needed). Therefore, the resources information herein is provided only for the purpose of indicating order of magnitude of efforts, and cannot be understood as a comprehensive resource evaluation such as a budget or a forecast that could accompany an implementation plan, or as an indication of feasibility, since availability of resources within the organization, whether in terms of skills or bandwidth, has not been evaluated to provide the information currently offered.

In light of the additional information received, the Board will take action it considers appropriate on the eleven (11) recommendations.

ICANN org will provide subsequent progress updates on the six (6) remaining recommendations in due course.

2. Recommendations for which Board Requests for Information are Complete

Recommendation 6 - Partner with mechanisms and entities involved with the collection of TLD data. As feasible, collect TLD registration number data per TLD and registrar at a country-by-country level in order to perform analysis based on the same methods used in the Latin American and Caribbean DNS Marketplace (LAC) Study.	
Board action (March 2019)	<p>“Place the recommendation in “Pending” status. ICANN org already has access to and has shared some data that serves this request, though it is unclear the scope of further collection that is feasible or available. The Board directs ICANN org to conduct a gap analysis and feasibility assessment to inform potential action on this recommendation. Additionally, the outcome of the implementation of Recommendation 1 will inform the Board’s decision on next steps and whether this recommendation can be adopted to move into costing discussion phase of implementation.”</p>
CCT-RT Directed Recommendation to	<p>ICANN organization</p>
CCT-RT Objectives	<p>To assess DNS marketplace competition at the country-level and between ccTLDs and gTLDs by:</p> <ul style="list-style-type: none"> • Comparing in-country shares of registrations held by ccTLD, legacy gTLD, and new gTLD operators • Comparing in-country measures of firm concentration among gTLD registry operators to measures of firm concentration among all TLD operators • Calculating in-country 4- and 8-firm concentration ratios (share of registrations served by the largest 4 and 8 firms) • Calculating in-country Herfindahl-Hirschman Index (sum of the squared share of registrations) for the largest 4 and 8 firms
CCT-RT Success Measures	<p>“The availability of relevant data for use by the ICANN organization, contractors, and the ICANN community for its work in evaluating competition in the DNS space.”</p>
What Other Projects Have an Impact on this?	<p>Ongoing work on registration data directory service policies and national laws may impact country-level data availability.</p>

ICANN Org Findings

- ICANN org finds that recommendation 6 is generally feasible to implement and recommends that the Board accept this recommendation.
- ICANN org notes that the collection of RDS data (from ccTLDs and gTLDs) and registrars at a country-by-country level, from multiple sources on an ongoing basis will present some challenges. ICANN org can make best efforts on a regional level to obtain TLD data, but there may be certain regions where collection is limited. The extent of analysis possible is dependent upon the overall availability of RDS data.
- The implementation of Recommendation 6 would involve ongoing costs for regular reporting of the requested data, presuming the data can be obtained. The cost information provided below is based on high-level estimates of possible costs from an external vendor and may change based on additional requirements. If the recommendation is implemented, costs may be marginally reduced over time as these activities are incorporated into general operating procedures.

“Partner with mechanisms and entities involved with the collection of TLD data. As feasible, collect TLD registration number data per TLD and registrar at a country-by-country level...”

Gap Analysis

Requirements:

1. Representative population of ccTLD RDS data to compare with representative population of gTLD RDS data
2. Ongoing collection, analysis, and publication of results

Gaps:

1. **RDS Data from ccTLDs:** While certain RDS datasets from the gTLD ecosystem may be obtained from third-party providers, obtaining ccTLD datasets could be more difficult. Unlike most gTLDs, which share a common gTLD Registry Agreement, ccTLDs are heterogenous in terms of their management, practices, and engagement with ICANN. Many national governments retain control over the ccTLDs representing their countries or territories. A lack of access to requisite ccTLD data in standardized form on an ongoing basis may preclude carrying out corresponding studies and/or the development of a repeatable method for carrying out the analysis.
2. **Lack of clarity on method to be employed:** The CCT-RT recommended that the analysis be modeled on the methods employed in the LAC Study, and also that it be modeled on their “Prototype-Country Specific Analysis.” However, the methods used in each analysis are different:

LAC Study Methodology

- Mapping A (DNS host records for IPv4) and AAAA (DNS host records for IPv6) records against the country of origin
- Examination of mail exchanger (MX) records
- Language and keyword analysis of web pages from the region to determine prevalence of local language web sites
- Interviews with local stakeholders and subject matter experts

LAC Study Sources

- gTLD zone files
- Commissioned third-party registration directory service data
- Available ccTLD and historical data
- Local stakeholders and subject matter experts

CCT-RT “Prototype Country-Specific Analysis” Methodology¹

- Compare global shares of registrations held by ccTLD, legacy gTLD, and new gTLD operators
- Compare global measures of firm concentration among gTLD registry operators to measures of firm concentration among all TLD operators
- Calculate 4- and 8-firm concentration ratios (share of registrations served by the largest 4 and 8 firms)
- Calculate Herfindahl-Hirschman Index (sum of the squared share of registrations) for each firm

Potential Sources for Expanded Country-Specific Analysis

- gTLD zone files (as available for ccTLDs)
- ccTLD zone files (as available) from regional TLD associations²
- Country-level registration directory service data from third-party provider

¹ See p. 52-55 of the CCT-RT’s Final Report - <https://www.icann.org/en/system/files/files/cct-final-08sep18-en.pdf>.

² For example, the Council of European National Top-Level Domain Registries (CENTR) works with similar associations in other regions to produce quarterly reports comparing trends in gTLDs and ccTLDs. See CENTR, “Quarterly Reports,” at <https://centr.org/statistics-centr/quarterly-reports.html>

<p>Cost Estimate</p>	<p><u>Method</u> Obtain comprehensive longitudinal RDS data from third-party providers,³ then analyze according to Recommendation 6 requirements.</p> <p>The following cost estimates detail the estimated base costs for carrying out the recommended analysis, followed by an estimation of costs should a third party be contracted to conduct it. If ICANN org were to carry out the analysis “in-house,” more FTE hours would be required than if carried out by a third party. If carried out by a third party, the additional cost of its analytical services would have to be added to the overall cost.</p> <p><u>Cost Estimate: RDS Data</u></p> <ol style="list-style-type: none"> 1. Estimated cost of gTLD RDS data procurement from commercial third-party: <ul style="list-style-type: none"> o US\$75,000 to US\$100,000 per year PLUS 2. Estimated cost of ccTLD RDS data procurement from other sources including TLD associations: <ul style="list-style-type: none"> o Unknown (dependent on availability) <p><u>Cost Estimate: Data Analysis</u> “In-House” Analysis: Costs 1 and 2 + 0.75 FTE per year</p> <p>Third-Party Analysis: US\$100,000 + Cost 1 and 2 + 0.25 FTE per year</p>
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Timeline

Activity	Deliverable	Estimated Duration
Procurement process	Outreach to potential ccTLD and gTLD data providers	16 weeks
Data collection & analysis	Availability of initial data set	12 weeks
Compilation and organization of data from multiple sources, calculation checks and reviews	Publication of initial data set	12 weeks

³ Potential sources include regional TLD associations such as: the Africa Top-Level Domain Association (AFTLD), Asia-Pacific Top-Level Domain Association (APTLD), Council of European Top-Level Domain Registries (CENTR), Latin American and Caribbean ccTLDs Organization (LACTLD), and commercial providers such as Domain Tools, WHOIS XML API, Zooknic and hosterstats.com.

Recommendation 7 - Collect domain usage data to better understand the implications of parked domains.	
Board action (March 2019)	“Place the recommendation in “Pending” status. The outcome of the implementation of Recommendation 1 will inform the Board’s decision on next steps and whether this recommendation can be adopted to move into costing discussion phase of implementation.”
CCT-RT Directed Recommendation to	ICANN organization
CCT-RT Objectives	<p>“The review team uses the term “domain usage” rather than “parking” in the recommendation because the term “parking” is associated with a wide variety of behaviors, and its definition may be inconsistent across the community. It is also likely that various types of “parking” behaviors reflect wide-ranging intentions by registrants and will have unpredictable and divergent implications on the competitive dynamics in the marketplace.”</p> <p>The CCT-RT suggested that “ICANN should regularly track the proportion of domains in gTLDs that are parked with sufficient granularity to identify trends on a regional and global basis. Ideally, data would allow analysis to occur on a per domain basis rather than being aggregated on a TLD level.”</p> <p>The CCT-RT indicated that “future reviews should conduct further analyses of whether there is a correlation between parked domains and renewal rates or other factors that may affect competition,” and that “further analysis should be performed on the relationship between parking and DNS abuse. The community may also wish to take this issue up for further study outside of the periodic CCT Review process, as the phenomenon is also prevalent within legacy gTLDs, and there does not seem to be significant study of the topic with ICANN.”</p>
CCT-RT Success Measures	“The availability of relevant data for use by the ICANN organization, contractors, and the ICANN community for its work in evaluating competition in the DNS space.”
What Other Projects Have an Impact on this?	N/A

ICANN Org Findings

- The CCT-RT defined parking for purposes of its work (see ch. 5, pg. 32), yet no standard definition of parking exists in the ecosystem, hindering the data collection processes.
- The CCT-RT envisions the data collected in line with this recommendation being used for multiple purposes, e.g., abuse studies, renewal analysis, and other community studies.
- The CCT-RT used data both freely available and purchased from nTLDstats for the analysis in its report.
- ICANN org has investigated this and other potential data sources, and notes that there is an opportunity for greater alignment on definition and methodology among stakeholders to make such data available in a manner that fits multiple purposes.
- For the purposes of collecting data on this recommendation, ICANN org would investigate existing definitions of parking, including the CCT-RT’s definition and its data collection methodologies, along with other potential data sources, in order to provide a definition of parking for community review, and a transparent methodology and process for data collection.

Background

During the course of its deliberations, the CCT-RT sought to collect data to better understand parked domains and their relevance to competition and the New gTLD Program. Relying on data obtained primarily from nTLDstats, the CCT-RT reported that “about 68% of registrations in new gTLDs were parked at the time of their analysis in December 2016, compared to 56% of registrations in legacy gTLDs.” Using the raw data collected, the CCT-RT was unable to find a statistically significant correlation between renewal rates and parking rates in either new or legacy gTLDs.

As a caveat to its overall analysis, the CCT-RT stated that, “although not dispositive, the fact that the average parking rate for new gTLDs is higher than for legacy gTLDs may suggest that competition from new gTLDs may not be as significant as indicated by the registration data [in the full report].” As a result, the CCT-RT recommends more robust studies of this topic to better understand whether relationships between parking and other indicators (e.g. competition, renewals) exist. Collection of further parking data is recommended by the CCT-RT to provide insight on the following questions put forth by the CCT-RT in its Final Report:

1. What parking measures best measure market rivalry
2. What renewal rates should be used
3. What factors other than parking are likely to affect renewal rates
4. A description of the functional form (e.g., linear, logarithmic, etc.) of the relationship between parking and renewals
5. The “lag” between parking and non-renewals (i.e., how much time is there between the time that a domain name is parked and the time at which it is not renewed?)

As a result, [Recommendation 7](#) of the CCT-RT’s Final Report stated: “Collect domain usage data to better understand the implications of parked domains.”

Analysis

No universal definition of parking appears to exist within the domain name industry, presenting potential hurdles in the collection, analysis and reporting on parking data. For the purposes of its report, the CCT-RT considered parked domains as those that “are forwarded to other domains (including sub-domains), used only for email, monetized via advertising, or simply do not resolve, perhaps held in reserve by speculators or as premium domains by registries.” This definition is broader than others cited elsewhere, such as the definition published in a policy brief by the GNSO Council in June 2008, which states: “domain parking is a practice used by registrars, individual registrants and Internet advertising publishers to monetize type-in traffic.”

nTLDstats (the source of the data used by the CCT-RT) defines parking as “any domains which have a traditional parked page, which can include registrar placeholders, any non-resolving site and those without content, those without a DNS record, and those being redirected to another domain.” Although there are some similar elements in the CCT-RT’s and nTLDstats’ definitions, the two are not exactly the same, which creates issues when performing analyses and in drawing conclusions.

Because the CCT-RT used nTLDstats data for its analyses, Recommendation 7 could be implemented by continuing to rely exclusively on new gTLD data collected from nTLDstats; however, ICANN org recommends further discussion. In its research, ICANN org found that there are several other data sources that compile parking data. However, each data source has its own definition of parking. Further complicating matters, not all potential data sources offer transparency into the methodology used to compile the data.

For reference, see below for more parking definitions from other sources:

- **DomainTools:** Domain Parking is the practice of directing a domain name to a single dynamic webpage, which then delivers targeted advertising and content related to a specific keyword (usually the domain name). If a web visitor clicks on any of the advertising on the parked page, the domain owner receives revenue.
- **Council of European National Top-Level Domain Registries (CENTR):** “Parked domains are domain names without association to services such as e-mail or a website.”
- [COVID Registration Spike and Abuse: Lessons Learned from a Contracted Party Perspective Pre-ICANN68 Webinar](#): A high level of interest was shown and the wide-ranging definitions of parking within the community was highlighted during this webinar.

To gain understanding on this topic, the CCT-RT used parking data for new gTLDs that nTLDstats routinely calculates. To support the review team’s analyses, ICANN org entered into a contract with nTLDstats to obtain data on legacy gTLDs. In its report, “[the Review Team] recommended that ICANN arrange to continue obtaining the data on an ongoing basis in the future.” The Review Team used registration data for December 2016, the same month for which other statistics in their final report are based. While nTLDstats is a widely used source in regard to the collection of parking data, the methodology they use to gather their data is not known.

The CCT-RT also collected raw data published by Domaintools.com. DailyChanges.DomainTools.com “monitors DNS changes for domain names and presents [people] with meaningful and actionable reporting on those changes.” Analyzing the daily figures on DomainTools.com provided the Review Team with a rough estimate of how many domains were parked with each company. The data also includes the number of domains parked at each company based on the nameservers used for parking, where available.

A more in-depth analysis of the nameservers associated with parking would need to be conducted in order to provide more concrete and actionable research to inform the future work of ICANN org. Data collection and analysis should offer transparency and clarity into the methodology and processes used.

Cost/Resources

The collection of legacy parking data would likely entail contracting with a vendor, and based on previous data purchased for CCT-RT, ICANN org can estimate the cost at approximately US\$ 5,500 per assessment. Parking rates for new gTLDs are freely available at nTLDstats.com, though they are not provided on a per domain basis, but rather per TLD. Future expansion of the data set to a greater level of detail as proposed by the CCT-RT requires a more detailed analysis and breakdown of parking data than what it previously collected.

Assuming the need for review and alignment on a working definition, the estimated timeline for implementation, including contracting with a vendor through delivery of a report, is 6 months. It is estimated that 0.5 FTE would be needed to support this work. Clarification, as noted above, is needed before cost and resources for the analysis of the data can be confirmed.

This estimated timeline describes the activities toward collection and dissemination of an initial data set. To inform continuing work, it is expected that this data would be updated on a continuous basis.

Activity	Deliverable	Estimated Duration
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Community discussions	Agreement on working set of terms	26 weeks
Contracting	Vendor agreement	13 weeks
Vendor delivery of data	Initial data set	3 weeks

Recommendation 8 - Conduct periodic surveys of registrants that gathers both objective and subjective information with a goal of creating more concrete and actionable information.

Recommendation 11 - Conduct periodic end-user consumer surveys. Future review teams should work with survey experts to conceive more behavioral measures of consumer trust that gather both objective and subjective data with a goal toward generating more concrete and actionable information.

Board action (March 2019)	<p>Recommendation 8 - “Place the recommendation in “Pending” status. The Board notes that ICANN org has already conducted periodic surveys, so work toward this recommendation has already taken place. The Board directs ICANN org to perform a gap analysis over the what has already been completed towards this recommendation and measured against broader community considerations of information that might be needed to support future community efforts. Once the scope of such surveys is better defined, the Board directs ICANN org to advise on what the cost of implementation would be. Additionally, outcome of the implementation of Recommendation 1 will inform the Board’s decision on next steps and whether this recommendation can be adopted to move into costing discussion phase of implementation.”</p> <p>Recommendation 11 - “Place the recommendation in “Pending” status. As ICANN org has already conducted such surveys, the Board directs ICANN org to perform a full impact assessment on whether there will be any duplication of work or gap analysis. Once the scope of such surveys is better defined, Board directs ICANN org to advise on what the cost of implementation would be. Additionally, the outcome of the implementation of Recommendation 1 will inform the Board’s decision on next steps and whether this recommendation can be adopted to move into costing discussion phase of implementation.”</p>
CCT-RT Directed Recommendation to	<p>Recommendation 8: ICANN organization</p> <p>Recommendation 11: ICANN organization and future CCT Review Teams</p>

<p>CCT-RT Objectives</p>	<p>Recommendation 8: This recommendation asks that ICANN org conduct periodic surveys of registrants in order to better understand the value of the increased choice offered by new gTLDs and to observe any changes in their sentiments and motivations over time. For consumer trust, the survey should provide a better understanding of registrants’ preference for particular TLDs; their motivations for choosing particular TLDs to register in; their familiarity and trust with TLDs, including trustworthiness of gTLDs that have registration restrictions vs. those without and whether perceived trustworthiness of TLDs influences registration behavior. For consumer choice, the survey should pose more focused questions relating to consumer preferences and choice with respect to geographic name gTLDs, specific sector gTLDs and IDN gTLDs as well as provide a better understand registrants’ perceived benefits of the expanded number and type of gTLDs, and whether confusion has been created by this expansion.</p> <p>Recommendation 11: This recommendation asks that ICANN org conduct periodic end-user consumer surveys. To better understand issues of consumer trust, the questions should focus on which TLDs consumer end-users prefer, including what factors drive their decisions to visit particular domain names; whether the TLD’s registration policies influence the choice of whether or not to visit; how their behavior is indicative of trust in those TLDs. For consumer choice, the survey should allow a relative weighting of the potential contributions to consumer choice with respect to geographic name gTLDs, specific sector gTLDs, brand gTLDs, and IDN gTLDs to help determine whether there is a clear preference among consumer end-users for different types of gTLDs, and whether confusion has been created by this expansion.</p>
<p>CCT-RT Success Measures</p>	<p>Recommendation 8: “The availability of relevant data for use by the ICANN organization, contractors, and the ICANN community for its work in evaluating competition in the DNS space.”</p> <p>Recommendation 11: “This recommendation would be considered successful if it produces data that enables future review teams and the ICANN organization to see how the levels of trustworthiness correlate with the number of visitations to new gTLDs, and what factors may contribute to the levels of trustworthiness. For example, registration restrictions appear to contribute to higher levels. This information could inform future policy-making on the terms and conditions that should apply for all new gTLD applicants. Another success measure would be information for new gTLD applicants in regard to what factors may lead to increased visitation and trustworthiness for new gTLDs. The last success measure would be data that informs ICANN policy on registration restrictions, especially if the data indicates that certain basic restrictions enhance trustworthiness in the gTLD space, alongside other variables driving gTLD model design and diversity. Those applicants choosing to apply for gTLDs with restrictions would then have a better basis for the decision to do so.”</p>
<p>What Other Projects Have an Impact on this?</p>	<p>N/A</p>

ICANN Org Findings

- ICANN org finds that Recommendations 8 and 11 are feasible to implement and recommends that the Board accept the recommendations.
- Implementation of these recommendations would entail contracting with a vendor to continue portions of the previous registrant and consumer end-user surveys, as well as incorporating additional questions and tools for tracking Internet user behavior to address new requirements from these recommendations.
- Based on initial discussions with potential vendors for this project, consumer attitudes towards the gTLD landscape tend to change slowly. Given the survey length and the pace of behavioral

change associated with the domain name marketplace, if implemented, ICANN org recommends that the surveys be conducted at regular intervals of at least three years to ensure baseline data for future analysis as well as to reduce response burden.

Results of Gap Analysis

ICANN commissioned the Nielsen company in 2015 to survey consumer end-users and global domain name registrants. To measure changes in attitude, these surveys were repeated in 2016 to compare against those conducted in 2015 as newer gTLDs came into operation, and took into consideration, where applicable, additional questions and requirements raised by the CCT-RT. The survey questions that relate to consumer trust and consumer choice are summarized below, under each objective listed in Recommendations 8 and 11, and are intended to provide a brief description of some of the work that has already been conducted in relation to these recommendations:

A. CONSUMER TRUST OBJECTIVES

(1) Key Factors for Users in Determining gTLD Domain Visits (Rec. 8 & 11)

Previous work conducted:

Registrant and Consumer End-User Survey: registrants and consumer end-users were shown **13 questions**, which included **1 open ended** and **1 “other specify,”** related to visitation of gTLDs. Participants were shown a list of gTLDs and asked how likely they were to visit each of those gTLDs in the next 6 months. If very likely or unlikely to visit a website with each TLD, respondents were asked to select a reason for why they were very likely or unlikely to visit a website with each of those extensions in the future. If “other” was selected as a reason, respondents were asked to explain. Respondents that said they had visited websites using new gTLDs were asked to select how positive or negative their experience was with each. If “very positive” or “very negative” was selected, respondents were asked to explain what made their experience very positive or very negative with that domain name extension.

Consumer End-User Survey: consumer end-users were asked an additional **6 questions**, which included **3 open ended**, related to the visitation of new gTLDs. Participants were asked to explain what criteria or situations might make them decide to visit websites with a domain name extension they had not seen before and what, if anything, might cause them to avoid a website with an unfamiliar domain name extension. In addition, consumer end-users were asked to select how likely they would be to visit extensions within, for example, .berlin or .photography when searching for information about Berlin or wildlife photography.

(2) Perception of New gTLDs With Registration Restrictions vs. New gTLDs With Few/No Restrictions (Rec. 8 & 11)

Previous work conducted:

Registrant and Consumer End-User Survey: registrants and consumer end-users were shown **4 questions** related to restrictions on registration of new gTLDs. Participants were shown a sample of new gTLDs and asked to select what level of restrictions they expected there to be on registering each gTLD. For context, both consumer end-users and registrants were also asked about their expectations regarding registration restrictions for legacy gTLDs. In addition, respondents were asked whether they felt that certain restrictions should be enforced, such as requirements for validated credentials related to the gTLD, how much they trust that the restrictions on a new registration will actually be enforced, and whether having purchase restrictions or requirements on a particular gTLD make it more or less trustworthy.

(3) Registration Behaviors and Perceived Trustworthiness of TLDs (Rec. 8)

Previous work conducted:

Registrant Survey: registrants were shown **16 questions**, which included **2 open ended and 3 “other specify,”** related to trustworthiness of TLDs. Participants that said they had registered domain names, were asked to: (1) provide an estimate of how many total domains they have registered, including domains that may no longer be active; (2) indicate whether they have ever registered duplicate domain names; and (3) if they have registered multiple domains, select a reason for doing so.

Registrants were also shown a list of specified legacy and new gTLDs and asked to select which extensions, if any, they had heard of. Registrants that selected extensions were shown those they had heard of and asked to select which, if any, they had personally registered names in. If setting up a website in the next 6 months, participants were asked to select how likely they would be to consider each legacy or new gTLD extension shown.

If they said they had registered in new gTLDs and more than one gTLD, of the domains they said they had registered, they were asked to provide an estimate of how many were new gTLDs. If they said they did not register in new gTLDs, they were asked if they had considered switching from their existing registered domain name to one of the new gTLDs. For registrants that did not register in new gTLDs, but said they considered switching, considered switching but did not, or said they did not consider switching, they were asked to select a reason for their decision.

Registrants were also shown a list of specified legacy and new gTLDs and asked to rate each domain name extension by how trustworthy they felt each was. Thinking about an extension that they felt was more trustworthy, they were asked to explain what about that domain name extension made it seem trustworthy.

(4) Popularity of Various New gTLDs Over Others (Rec. 11)

Previous work conducted:

Consumer End-User Survey: consumer end-users were shown **17 questions**, which included **1 open ended and 2 “other specify,”** related to visitation of new gTLDs. Participants were asked to assume they were searching for information about Berlin or wildlife photography, and to select how likely they would be to visit extensions within .berlin or .photography. Consumer end-users were also shown a list of specified new gTLDs and asked how likely they were to visit each of those extensions in the next 6 months. If “very likely” or “unlikely” was selected, respondents were asked to select a reason for why they were very likely or unlikely to visit a website with that extension in the future. If “other” was selected as a reason, respondents were asked to explain why else they are very likely or unlikely to visit a website with that domain name extension.

Respondents that said they had visited new gTLD websites were shown a list of new gTLDs they had been to and asked to select how positive or negative their experience was with each new gTLD. If “very positive” or “very negative” was selected, respondents were asked to explain what made their experience very positive or very negative with that domain name extension.

(5) Behavior as an Indication of Trust in New gTLDs (Rec. 11)

Previous work conducted:

Consumer End-User Survey: consumer end-users were shown **10 questions**, which included **3 open ended and 1 “other specify,”** related to new gTLDs. Participants were asked to explain what criteria or situations might make them decide to visit websites with a domain name extension they have not seen before and what, if anything, might cause them to avoid a website with an unfamiliar domain name extension. In addition, participants were asked to assume that while browsing they see a website with a domain extension that they do not recognize and what about this unfamiliar domain name extension would make it feel trustworthy.

Participants were also shown a list of specified new gTLDs and asked to select how likely they were to visit each new gTLD in the next 6 months. If “very likely” or “unlikely” was selected, respondents were asked to select a reason for why they were very likely or unlikely to visit a website with that extension in

the future. If “other” was selected as a reason, respondents were asked to explain why else they were very likely or unlikely to visit a website with that extension.

Respondents were also shown a list of specified new gTLDs and asked to rate each domain name extension by how trustworthy they felt it was. Respondents that said they had visited new gTLD websites were shown a list of the new gTLDs they said had been to and asked to select how positive or negative their experience was with each new gTLD. If “very positive” or “very negative” was selected, respondents were asked to explain what made their experience very positive or very negative with that extension. In addition to surveying the public about their subjective views on trust, the survey also included questions about behavior that could indicate trust, such as willingness to provide sensitive information to websites associated with new gTLDs.

B. CONSUMER CHOICE OBJECTIVES

(6) Is the Expanded Name Space Beneficial or Confusing? (Rec. 8 & 11)

Previous work conducted:

Registrant and Consumer End-User Survey: registrants and consumer end-users were shown **17 questions**, which included **2 open ended** and **3 “other specify,”** related to how they viewed the expanded name space. Participants were asked if they had heard of new gTLDs and those that had were shown a list of specified new gTLD extensions and asked which they had personally visited when going to websites. Respondents were also asked how likely they are to visit each specified new gTLD in the future. If “very likely” or “unlikely” was selected, respondents were asked to choose a reason for why they were very likely or unlikely to visit a website with that extension in the future. If “other” was selected as a reason, respondents were asked to explain why else they are very likely or unlikely to visit a website with that extension.

Respondents that said they had visited new gTLD websites were shown a list of new gTLDs they had been to and asked to select how positive or negative their experience was with each new gTLD they had said they had visited. If “very positive” or “very negative” was selected, respondents were asked to explain what made their experience very positive or very negative.

If setting up a website in the next 6 months, participants were asked how likely they would be to consider each specified new gTLD extension shown. Respondents were asked to explain, to the best of their knowledge, why new gTLDs had been created. In addition, respondents were asked to select how satisfied they were with new gTLDs and how well a set of adjectives listed described new gTLDs such as .email, .photography and .club.

Respondents were also asked to select the safest, easiest and fastest method (e.g., accessing via a QR code, typing the domain name into a browser, etc.) for each of these scenarios: (1) looking for information about a topic on the Internet, (2) buying things over the Internet, and (3) visiting websites that they go to regularly where they will access their personal information, like banking or healthcare information. In addition, respondents were asked to select their preferred way of finding websites 2-3 years ago (e.g., use an app, QR, search engine, etc.), and what their preferred way of finding websites is now.

Registrant Survey: registrants were asked an additional **8 questions**, which included **1 open ended** and **3 “other specify,”** related to the visitation of new gTLDs. Participants that said they had heard of and registered new gTLD extensions, of the domains they said they had registered, they were asked to provide an estimate of how many were new gTLDs. If they said they did not register new gTLDs, they were asked if they had considered switching from their existing registered domain to one of the new gTLDs. For registrants that did not register new gTLDs, but said they considered switching, considered switching but did not, or said they did not consider switching, they were asked to select a reason for their decision.

(7) Most Visited New gTLDs (Rec. 11)

Previous work conducted:

Consumer End-User Survey: consumer end-users were shown **2 questions** related to visitation of new gTLDs. Participants were shown a list of specified new gTLDs and asked to select which new gTLDs, if any, they had heard of. If they had heard of new gTLDs, they were asked to select which new gTLDs they had personally visited when going to websites.

ICANN Org Gap Analysis

Rec. 8: Gaps Identified in Registrant Survey

The survey of domain name registrants did not contain questions to allow for an analysis of:

- Why registrants choose to register in some TLDs but not others, and whether there are regional differences or similarities in their preferences
- Whether a TLD's registration policies and perception of trustworthiness influence the choice of whether or not to register
- What factors matter most to them in determining which gTLDs to visit
- A comparison of consumer trust levels between new gTLDs with varying degrees of registration restrictions.
- Whether registrants view the expanded name space as beneficial or confusing⁴

According to the CCT-RT, the following questions should be incorporated in the next iteration of a survey of domain name registrants:

- "What proportion of the registrants in the new gTLDs were previously registrants in a legacy gTLD but gave up their registrations when they registered in a new gTLD? This will provide some indication of the importance of switching costs.
- What proportion of the registrants in the new gTLDs had not previously been registrants in any gTLD? This will provide some indication of the extent to which the introduction of new gTLDs expanded the number of individual registrants.
- What proportion of the registrants in the new gTLDs are entities that continued to have registrations in legacy gTLDs? This will provide some indication of whether registrations in legacy and new gTLDs are complements as opposed to substitutes.
- What proportion of the registrants in the new gTLDs registered primarily: (a) for defensive reasons, i.e., they felt compelled to register in a new gTLD because they existed but obtained no benefits from doing so and what proportion registered primarily or (b) for the benefits that they received, perhaps because doing so permitted them to reach users that would have otherwise been inaccessible? This will provide some indication of whether, on balance, the introduction of new gTLDs resulted in net costs or net benefits to registrants.
- What are the characteristics of the new gTLDs that attracted registrants primarily because of the benefits that they offered? This will provide some indication of the sources of the benefits that the new gTLDs provided, e.g., new allowable characters, service to a specific community, higher levels of security or customer service, ability to offer domain names to noncompeting entities."
- "Did you register a new domain name in the last 12 months?"
- For each name that you registered, did you register it in a new gTLD or in a legacy gTLD?
- For each name that you registered in a new gTLD [Check one]
 - Was the registration a newly registered name?
 - Did the registration replace a registration in a legacy gTLD?
 - Did the registration duplicate a registration in a legacy gTLD?
- For each name that you registered in a new gTLD, was the closest alternative that you considered another gTLD or a legacy gTLD? What was the identity of that gTLD?

⁴ According to CCT-RT, "the set of questions posed did not allow for a full analysis of consumer motivations or to understand how valuable they found the expanded choice offered by the new gTLDs." and "The CCT attempted to consider the benefits of the expanded number of gTLDs weighed against the risks that such expansion could create confusion, particularly for consumer end users navigating to domain names. Although there was some data available about the benefits of the expansion for consumer end-users and registrants, the review team lacked specific data about the risks of confusion. As a result, the analysis on this topic is incomplete."

- For each name that you registered in a legacy gTLD, did you consider registering in a new gTLD as an alternative?
- For each name that duplicated a registration in a legacy gTLD, was the registration intended primarily to prevent the name from being used by another registrant?
- For each name that you registered, indicate whether it is currently parked.”

According to the CCT-RT, “Although definitions of parking vary, the general idea is that parked domains are not currently being used as identifiers for Internet resources. Examples of behaviors that could be considered parking include:

- “The domain name does not resolve.
- The domain name resolves, but attempts to connect via HTTP return an error message.
- HTTP connections are successful, but the result is a page that displays advertisements, offers the domain for sale, or both. In a small number of cases, these pages may also be used as a vector to distribute malware.
- The page that is returned is empty or otherwise indicates that the registrant is not providing any content.
- The page that is returned is a template provided by the registry with no customization offered by the registrant.
- The domain was registered by an affiliate of the registry operator and uses a standard template with no unique content.
- The domain redirects to another domain in a different TLD.”

Rec. 11: Gaps Identified in End-User Consumer Survey

The survey of Internet users did not contain enough questions to fulfill the CCT-RT’s objectives on:

- Which new gTLDs users have visited most.
- Why consumer end-users choose to visit some TLDs but not others, and whether there are regional differences or similarities in their preferences.
- What factors may lead to increased visitation and trustworthiness for new gTLDs.
- Whether a TLD’s registration policies and perception of trustworthiness influence the choice of whether or not to visit.
- How user behaviors indicate on certain websites to what extent they trust new gTLDs.
- Whether consumer end-users view the expanded name space as beneficial or confusing.

The CCT-RT also recommends that future review teams should work with survey experts to conceive more behavioral measures of consumer trust that gather both objective and subjective data, with a goal toward generating more concrete and actionable information. This could include web analytics, e.g., analyzing the behavior of visitors to a website to complement the information collected from future consumer surveys. Based on initial discussions with potential vendors for this project, there are tools available to track the behavior of Internet users such as which websites they visit, what they click on, what features they use, where they come from, and on which pages they decide to leave the site.

In addition, digital behavior tracking tools could be used to identify and explore any gaps and potential reasons between stated perceptions and actual observed behaviors, e.g., if they rank new gTLDs low on trustworthiness but provide sensitive information to sites with new gTLDs. By opting-in to passive digital behavior tracking, survey respondents allow their online activities (e.g., websites visited) to be statistically explored in order to contrast stated vs. observed behaviors. Tools tracking which new gTLDs Internet users have visited most may also help in assessing the additional areas identified by the CCT-RT. ICANN org is investigating the costs and feasibility of such tools in the context of the recommended surveys.

Costs of Implementation

Implementing these recommendations requires continuing portions of the registrant and consumer end-user surveys previously conducted for the CCT-RT, and including additional questions to address new requirements from these recommendations. Surveys of consumers and registrants are each estimated to cost between US\$100,000 and US\$150,000 per iteration (based on scope, capabilities, and assuming the

same requirements for sample size and regional participation in multiple languages as the surveys undertaken for the CCT review). This is a high-level estimate of possible costs and may change based on additional requirements.

Implementation of these recommendations would entail contracting with a vendor qualified to develop a survey for each respondent group based on ICANN org's guidance and input, which can be appropriately customized (e.g., additions, modifications, or deletions of suggested questions) and conducted at regular intervals to inform future review teams and other efforts. The selected provider would be expected to closely consult with ICANN org as well as future CCT review teams throughout the duration of the project, and to administer the survey in accordance with proposed timeline and methods.

Recommendations 8 and 11 suggest periodically conducting registrant and consumer-end user surveys. The higher the frequency of measurement in these periodic surveys, the greater the cost. Based on initial discussions with potential vendors for this project, the set of behaviors that are being studied tend to change slowly. Thus it is recommended that these surveys should not be conducted more than annually. Reducing the length and frequency of surveys is also useful for reducing attrition and promotes higher cooperation from respondents.

If these recommendations are implemented, ICANN org recommends running each global survey at intervals of at least three years, which ensures meaningful baseline data for future analysis as well as providing current information. Given the survey length and the pace of behavioral change associated with this topic, this option is recommended as it appropriately balances the need to maintain comparability over time and response burden.

An alternative option that may be considered is to tie the surveys to the next CCT review and kick off the work once the date of an upcoming round of new gTLDs is announced. This option may reduce cost and ensures that some data will be made available to inform the next CCT Review Team's work in accordance with the requirements of the ICANN's Bylaws Section 4.6(d)(ii), which provides that: "After a New gTLD Round has been in operation for one year, the Board shall cause a competition, consumer trust and consumer choice review as specified in this Section 4.6(d)."

A drawback to this approach is that waiting an extended period of time to repeat the surveys, which were conducted in 2015 and 2016, may impact data quality--as important information could be missed to support future CCT review teams. In addition, while conducting the surveys for the next round of new gTLDs one year apart creates a baseline of data on consumer attitudes, this approach is not recommended, as consumer attitudes toward the new gTLD landscape change slowly, and data from the 2015 and 2016 surveys revealed little change from one year to the next.

Timeline

The duration required to support implementation of these recommendations may vary according to the complexity of the agreed work, and whether tools to collect additional behavioral data are used in conjunction with the surveys. Based on the timelines of the previous global surveys, a rough estimate for the first wave of the surveys is shown below.

As the surveys are intended to be repeated on a regular basis, costs for regular reporting of this data could be reduced by entering into a long-term contract with a provider, as well as allowing for more efficiency and accumulation of experience over time.

Activity	Deliverable	Estimated Duration
Procurement process	Agreement with contractor	20 weeks
Questionnaire development	Survey document	8 weeks

Survey translations and testing	Survey ready to field	3 weeks
Data collection & analysis	Data from completed surveys	8-24 weeks
Drafting of survey results	Report of survey results	8 weeks

Recommendation 13 - ICANN should collect data in conjunction with its related data collection activities on the impact of restrictions on who can buy domains within certain new gTLDs (registration restrictions) to help regularly determine and report:

- 1. Whether consumers and registrants are aware that certain new gTLDs have registration restrictions;**
- 2. Compare consumer trust levels between new gTLDs with varying degrees of registration restrictions;**
- 3. Determine whether the lower abuse rates associated with gTLDs that impose stricter registration policies identified in the Statistical Analysis of DNS Abuse in gTLDs Study continue to be present within new gTLDs that impose registration restrictions as compared with new gTLDs that do not**
- 4. Assess the costs and benefits of registration restrictions to contracted parties and the public (to include impacts on competition and consumer choice) and;**
- 5. Determine whether and how such registration restrictions are enforced or challenged.**

Board action (March 2019)	“Place the recommendation in “Pending” status. The Board directs ICANN org to consider if there are already effort that could be leveraged to meet this recommendation, such as the continuation of the previous DNS abuse study. In considering potential implementation, the Board also directs ICANN org to consider availability of data as part of its planning efforts, and the types of information that are available through contract as opposed to voluntary compliance through contracted parties. Additionally, the outcome of the implementation of Recommendation 1 will inform the Board’s decision on next steps and whether this recommendation can be adopted to move into costing discussion phase of implementation.”
CCT-RT Directed Recommendation to	ICANN organization
CCT-RT Objectives	The recommendation asks for additional data on the impact registration restrictions have on consumer trust. Recommendation 13 is focused on comparing consumer trust levels in TLDs with restrictions versus those without, whether restrictions impact DNS abuse rates, and how such restrictions are enforced. The recommendation also recommends exploring the costs and benefits of registration restrictions on the relevant parties.
CCT-RT Success Measures	“This recommendation will be considered successful if it generates data that provides guidance for future review teams and policy development processes on the topic of registration restrictions, particular if the data indicates under what circumstances the benefits of registration restrictions to the public (which may include decreased levels of DNS abuse) outweigh possible costs to contracted parties or possible impacts on competition.”
What Other Projects Have an Impact on this?	N/A

ICANN Org Findings

- **ICANN org finds Parts 1, 2, 3, 4 and 5 are feasible to implement and recommends the Board accept these recommendations.**
 - **Parts 1 and 2** of the recommendation are included in the calculations for surveys in recommendations 8 and 11. Data collection concerning consumer awareness of registration restrictions and consumer trust levels in TLDs with restrictions versus those without can be incorporated as part of future surveys of consumer-end users and registrants.
 - **Part 3** entails extending parts of the [“Statistical Analysis of DNS Abuse in gTLDs”](#) study to continue to collect data on the impact of registration restrictions on DNS abuse rates.
 - Implementation of **part 4** of the recommendation entails seeking data to help future review teams assess the costs and benefits of registration restrictions to contracted

- parties and the public Clarification regarding Part 4 has been received from CCT Implementation Shepherds (see below).
- **Part 5** of the recommendation can be implemented by ICANN org resources; however, it requires ICANN compliance resources to support periodic audits of registries with mandatory registration restrictions in their registry agreement, as well as labor-intensive manual data collection of new gTLDs with registration requirements not included in contracts with ICANN. In the latter case, data collection is highly dependent on contracted parties' willingness to provide information on enforcement. ICANN org notes that the current data available may be insufficient to analyze enforcement and obtaining meaningful data may be challenging. However, it may be possible to obtain the data via a voluntary survey conducted by GDS. ICANN org recommends conducting a pilot survey to gather the requested data, and reviewing results and participation rates to determine whether the survey should be continued at regular intervals.

Assessment of Existing Efforts

The recommendation asks that ICANN org gather data on the impact of restrictions concerning who can register a domain name within a particular gTLD. In addition, the CCT-RT recommends that ICANN org explore how to incorporate this data collection as part of its existing data collection initiatives to help regularly determine and report on these areas. As such, resources, costs, and timing will vary depending on the frequency with which data is collected, analyzed, and published. If it is determined that this data is useful and should be collected on a continual basis, automation should be explored to streamline future collection processes and reduce costs.

ICANN org notes that some work related to Recommendation 13 has already taken place, and implementation of other parts of Recommendation 13 requires commissioning new research or repeating portions of previous studies conducted for the CCT-RT. ICANN-commissioned studies and initiatives are summarized below under each part of the recommendation, and are intended to provide a brief description of some of the work that has already been conducted with regard to registration restrictions.

Parts 1 and 2

(1) Determine and report whether consumers and registrants are aware that certain new gTLDs have registration restrictions; and

(2) Compare consumer trust levels between new gTLDs with varying degrees of registration restrictions.

This part of the recommendation requires continuing portions of the registrant and consumer end-user surveys previously conducted for the CCT-RT, and may include additional questions to address new requirements from this recommendation. ICANN org recommends that the Board accept Parts 1 and 2.

ICANN org commissioned the Nielsen company in 2015 to survey consumer end-users and global domain name registrants. To measure changes in attitude as newer gTLDs became more prominent in the domain name space, these surveys were repeated in 2016 to compare against those conducted in 2015. As part of these surveys, registrants and consumer end-users were shown four questions related to restrictions on registration of new gTLDs.

Participants were shown a sample of new gTLDs and asked to select what level of restrictions they expected there to be on registering names in each gTLD. For context, both consumer end-users and registrants were also asked about their expectations regarding registration restrictions for legacy gTLDs. In addition, respondents were asked whether they felt that certain restrictions should be enforced, such as requirements for validated credentials related to the gTLD, how much they trust that the restrictions on a new registration will actually be enforced, and whether having purchase restrictions or requirements on a particular gTLD make it more or less trustworthy.

The ICANN consumer and registrant surveys commissioned for the CCT-RT indicated that the public expects certain registration restrictions about who can purchase domains and trusts that these restrictions will be enforced. The survey results also indicated that the presence of such registration restrictions

contributed to consumer trust. To the extent that such awareness and trust levels change, this would be captured in recurring surveys.

Part 3

(3) Determine whether the lower abuse rates associated with gTLDs that impose stricter registration policies identified in the Statistical Analysis of DNS Abuse in gTLDs Study continue to be present within new gTLDs that impose registration restrictions as compared with new gTLDs that do not.

Implementation of this part of the recommendation entails extending certain parts of the [“Statistical Analysis of DNS Abuse in gTLDs”](#) Study previously conducted for the CCT-RT. As mentioned in their report, in future work, the researchers plan to collect detailed data on registration policies across all new gTLDs and perform a more fine-grained analysis on factors that may also influence abuse counts. ICANN org recommends the Board accept Part 3.

The “Statistical Analysis of DNS Abuse in gTLDs” study conducted for the CCT-RT analyzed how different structural and security-related properties of gTLD operators influence abuse counts. The analysis revealed that abuse counts primarily correlate with strict registration policies. For example, bad actors prefer to register names in new gTLDs which are generally open for public registration, rather than community gTLDs for which registries may impose restrictions on who or which entities can register their domains.

As noted in the recommendation, ICANN org should explore how to incorporate this data collection as part of its Domain Abuse Activity Reporting (DAAR) system, which compiles and provides tabular and graphical visualizations of domain registration and abuse activities across gTLDs. DAAR reporting and publication is currently an active effort, designed to provide the ICANN community with a reliable, persistent, and reproducible set of data from which security threat and abuse analyses could be performed. Consideration of options for inclusion and regular publication of abuse rates in gTLDs with registration restrictions to gTLDs without registration restrictions could be part of this dialogue.

Part 4

(4) Assess the costs and benefits of registration restrictions to contracted parties and the public (to include impacts on competition and consumer choice).

A cost-benefit analysis on registration restrictions should consider the costs and benefits to multiple stakeholders, for example, registries, Internet users, and others. However, without a known desired objective or clarity on what is meant by costs and benefits within the context of these recommendations, it may be challenging to ensure that the data collection and analyses meet the intent of the recommendations.

In June 2019, ICANN org sought CCT Implementation Shepherds’ clarifications on a [set of questions](#), including on this recommendation. The question was further refined and [circulated](#) to the CCT-RT Implementation Shepherds on behalf of the CCT Board Caucus Group in August 2020:

- [...] *“We recall the set of questions ICANN org circulated to the CCT-RT Implementation Shepherds in June 2019 and would like to reiterate the question on recommendation 13 for further clarification. Specifically, we would appreciate clarification regarding part 4 of the recommendation. We note that implementation of part 4 entails commissioning a study on the costs and benefits of registration restrictions on contracted parties and the public. We also note that this section of the recommendation is focused on qualitative research and analysis rather than quantitative data collection. Can the Implementation Shepherds provide clarity on what the CCT-RT meant by costs and benefits within the context of this recommendation? Additionally, can the Implementation Shepherds provide clarity on the expected outcome of such a study?”* [...]

CCT-RT Implementation Shepherds provided [response](#) on 15 September 2020:

[...] “This Recommendation directed an assessment of “the costs and benefits of registration restrictions to contracted parties and the public (to include impacts on competition and consumer

choice).” For context, our rationale noted the following:

- the public expects top restrictions about who can purchase certain domain names;
- the public trusts that these restrictions will be enforced;
- the presence of such restrictions contributes to consumer trust;
- “Statistical Analysis of DNS Abuse in gTLDs” study indicated that DNS Security Abuse levels correlate with strict registration policies, with bad actors preferring register domains with no registration restrictions.

We observed that it would be important to obtain information on the costs of registration restrictions on the relevant parties so that benefits (in terms of increased trust and decreased DNS abuse) can be weighed against costs (including increased resources needed to implement such restrictions and financial costs) and any restrictions on competition.

Your question asks what we mean by “costs and benefits” and notes that this calls for qualitative rather than quantitative data. First, we intend our use of the phrase costs and benefits to be consistent with its general plain language usage. Second, in terms of costs, we note in our Final Report that Registries and Registrars may incur additional costs and expend additional resources in implementing and enforcing registration restrictions. This data can be measured and is indeed quantitative (hence we disagree with the premise of your question). In terms of benefits, our Final Report notes a range of potential benefits, including increased consumer trust in the domain name system and decreased DNS Abuse. We also note that restrictions for certain highly regulated domains may lead to benefits that are specific to those industries (e.g. increased use of online pharmacies and banks). Unlike costs, this information may be more qualitative, though DNS abuse levels may be correlated to domains with registration restrictions. The goal would be to provide guidance to inform future policy decisions regarding new gTLDs, especially as they relate to the issue of whether restrictions should be encouraged or included within the standard provisions included in ICANN new gTLD contracts. [...]

For reference, previous studies, such as [“An Economic Framework for the Analysis of the Expansion of Generic Top-Level Domain Names”](#) conducted in June 2010 and [Phase II](#) of this independent economic analysis conducted in December 2010, were performed in preparation for the New gTLD Program. These studies provided an analysis, including a taxonomy of gTLD types, potential costs and benefits of new gTLDs, including those with registration restrictions, of results from empirical research on the domain names associated with top international brands.

Part 5

(5) Determine whether and how such registration restrictions are enforced or challenged.

There are currently no active study efforts in relation to determining whether and how registration restrictions are enforced or challenged. ICANN org notes that the current data available may be insufficient to analyze enforcement and obtaining meaningful data may be challenging. However, it may be possible to obtain the data via a voluntary survey conducted by GDS. ICANN org recommends conducting a pilot survey to gather the requested data, and reviewing results and participation rates to determine whether the survey should be continued at regular intervals.

Registry Operators may, but are not required to, establish additional requirements for registering a domain name in a TLD, procedures for the enforcement of registration policies for the TLD, and resolution of disputes concerning compliance with TLD registration policies. As such, obtaining data on registration restrictions that are not included in contracts with ICANN requires labor-intensive manual data collection and is highly dependent on contracted parties’ willingness to provide information on enforcement.

Other potential sources of data that could inform this work include disputes filed and complaints received by ICANN Contractual Compliance. The Registration Restrictions Dispute Resolution Procedure (RRDRP) is also available to parties potentially harmed by a new gTLD Registry; however, to date there have been no formal complaint filings under this procedure.

Resource & Cost Requirements

Recommendation 13 in the CCT-RT final report asks for collection of data on the impact of registration restrictions. Some of the data and studies requested in this recommendation appear to require outsourced knowledge or external vendors who have the ability to gather and synthesize the requested information. Engagement with multiple vendors that have the relevant skills and expertise to address the different parts of the recommendation would be required, with support from ICANN org as needed. The implementation of Recommendation 13 is expected to include costs for implementation as well as ongoing costs for regular reporting of the requested data. Cost information provided here is based on high-level estimates of possible costs from external vendors and comparable projects, and may change based on additional requirements. Incorporating this data as part of ICANN org's related data gathering activities may reduce these costs in the future.

Parts 1 and 2

<i>(1) Determine and report whether consumers and registrants are aware that certain new gTLDs have registration restrictions; and (2) Compare consumer trust levels between new gTLDs with varying degrees of registration restrictions.</i>	
ICANN org time	GDS 0.5 FTE for 35 weeks with minimum support from other departments*
Systems needs	None
Professional services	Implementation of parts 1 and 2 of the recommendation would entail contracting with a vendor qualified to develop a survey for each respondent group based on ICANN org's guidance and input, which can be appropriately customized (e.g. additions, modifications, or deletions of suggested questions) and conducted at regular intervals, to compare awareness of registration restrictions and consumer trust levels over time. The selected provider would be expected to closely consult and collaborate with ICANN org throughout the duration of the project.
Community resources	None
Cost Estimate	Surveys of consumers and registrants are each estimated to cost USD 150,000 per iteration of the report.*

**Note: These activities overlap with activities related to Recommendations 8 and 11, and the resource and cost allocations accounted for here are the same as those included in the resource calculations for Recommendations 8 and 11.*

Part 3

<i>(3) Determine whether the lower abuse rates associated with gTLDs that impose stricter registration policies identified in the Statistical Analysis of DNS Abuse in gTLDs Study continue to be present within new gTLDs that impose registration restrictions as compared with new gTLDs that do not.</i>	
ICANN org time	GDS 0.25 FTE for 39 weeks with medium support level from other departments
Systems needs	None

Professional services	<p>To carry out the study recommended in Part 3, ICANN org would need to engage a third-party vendor with experience in DNS abuse measurement and descriptive and inferential statistical analysis. The selected provider will be expected to work with ICANN org and develop work methods, data gathering mechanisms and evaluation/assessment approaches as appropriate to the study.</p> <p>Alternatively, implementation of this part of the recommendation could entail possibly broadening the data collection efforts of DAAR. However, specialized expertise may be required if it is determined that there is a need for more sophisticated statistical analysis beyond the internal expertise available within ICANN org and the capabilities of DAAR.</p>
Community resources	Community resources may include at least one public comment period.
Cost Estimate	The cost of the study is estimated at USD 100,000 per iteration. If conducted as part of a follow-up study to the previous iteration, the cost may be lower. Costs for regular reporting of this data could be reduced if it is determined that this data can be included as part of DAAR initiative.

Parts 4 and 5

As explained above, it may be possible to obtain the data via a voluntary survey conducted by GDS. ICANN org recommends conducting a pilot survey to gather the requested data and review results and participation rates to determine whether the survey should be continued at regular intervals.

<p><i>(4) Assess the costs and benefits of registration restrictions to contracted parties and the public (to include impacts on competition and consumer choice).</i></p> <p><i>(5) Determine whether and how such registration restrictions are enforced or challenged.</i></p>	
ICANN org time	As noted, ICANN org recommends that a pilot voluntary survey be conducted to obtain the requested information from contracted parties. If a voluntary survey is conducted, this would not require external vendors or outsourced knowledge, but rather can be implemented by ICANN org resources. Based on results of the pilot survey and determination of next steps, additional resources may be required.
Professional services	None
Systems needs	None
Community resources	Community resources would be required for participation in the voluntary survey and providing the requested information.
Cost Estimate	Use of existing ICANN org resources for pilot. Based on results of pilot and determination regarding next steps, additional resources may or may not be required.

**Note: "Public" information gathering activities of Part 4 are included in the resource and cost allocations for Recommendations 8 and 11. Please see those sections above for more details.*

Timing

The duration required to support implementation of this recommendation varies according to the complexity of the agreed work and data available.

Parts 1 and 2

***(1) Determine and report whether consumers and registrants are aware that certain new gTLDs have registration restrictions; and
(2) Compare consumer trust levels between new gTLDs with varying degrees of registration restrictions.***

Activity	Deliverable	Estimated Duration
Procurement process	Agreement with contractor	20 weeks
Questionnaire development	Survey document	15 weeks
Survey testing	Review and test survey program	3 weeks
Data collection & analysis	Data from completed surveys	7 weeks
Final report	Draft report of survey results and submit report to ICANN org	8 weeks

**Note: These activities are included in the timing calculations for Recommendations 8 and 11.*

Part 3

(3) Determine whether the lower abuse rates associated with gTLDs that impose stricter registration policies identified in the Statistical Analysis of DNS Abuse in gTLDs Study continue to be present within new gTLDs that impose registration restrictions as compared with new gTLDs that do not.

Activity	Deliverable	Estimated Duration
Procurement process	Agreement with contractor	20 weeks
Data collection & analysis	Collect and analyze data	24 weeks
Report writing & publication	Draft analysis and submit report to ICANN org	15 weeks

Part 4

(4) Assess the costs and benefits of registration restrictions to contracted parties and the public (to include impacts on competition and consumer choice).

Activity	Deliverable	Estimated Duration
Procurement process	Agreement with contractor	20 weeks
Questionnaire development	Survey document	15 weeks

Survey testing	Review and test survey program	3 weeks
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**Note: These activities are included in the timing calculations for Recommendations 8 and 11. For the "contracted parties" info gathering activities, please see Part 5.*

Part 5

As explained above, it may be possible to obtain the data via a voluntary survey conducted by GDS. ICANN org recommends conducting a pilot survey to gather the requested data and review results and participation rates to determine whether the survey should be continued at regular intervals. The duration required to support implementation of this recommendation via a pilot survey is estimated to be, as follows

<i>(5) Determine whether and how such registration restrictions are enforced or challenged.</i>		
Activity	Deliverable	Estimated Duration
Questionnaire development	Create survey questions	8 weeks
Data collection	Data from completed surveys	4-6 weeks
Data analysis	Analysis of data from completed surveys	8 weeks
Report writing & publication	Report of survey results	8 weeks

Recommendation 16 - Further study the relationship between specific registry operators, registrars, and DNS Security Abuse by commissioning ongoing data collection, including but not limited to, ICANN Domain Abuse Activity Reporting (DAAR) initiatives. For transparency purposes, this information should be regularly published, ideally quarterly and no less than annually, in order to be able to identify registries and registrars that need to come under greater scrutiny, investigation, and potential enforcement action by ICANN organization. Upon identifying abuse phenomena, ICANN should put in place an action plan to respond to such studies, remedy problems identified, and define future ongoing data collection.

Board action	<p>“[This action pertains to a portion of the recommendation language - refer to bold text.] Place these two elements of the recommendation in “Pending status” and directs ICANN org to conduct a gap analysis of the study suggested by the CCT-RT compared to existing collection effort to inform usefulness of the study, and to inform whether establishing future ongoing data collection would be meaningful. The analysis should take into account the work that the org is already performing, such as Contractual Compliance audits. Additionally, the outcome of the implementation of Recommendation 1 will inform the Board’s decision on next steps and whether this recommendation can be adopted to move into costing discussion phase of implementation”</p>
CCT-RT Directed Recommendation to	<p>The ICANN Board, the Registry Stakeholders Group, the Registrar Stakeholders Group, the Generic Names Supporting Organization, and the Subsequent Procedures PDP WG, SSR2 Review Team.</p>
CCT-RT Objectives	<p>The CCT-RT considered the DNS Abuse study to offer a benchmark of DNS Security Abuse since the onset of the New gTLD Program, the Review Team recommended regular follow-up studies “so that the community is provided current, actionable data on a regular basis to inform policy decisions.”</p> <p>The Review Team noted that the additional studies need to be of an ongoing nature, collecting relevant data concerning DNS Security Abuse at both the registrar and registry level. The review team also envisioned regular publication of such data, “enabling the community and the ICANN organization in particular to identify registries and registrars that need to come under greater compliance scrutiny and thereby have such behavior eradicated.”</p>
CCT-RT Success Measures	<p>“Comprehensive, up-to-date technical DNS Security Abuse data is readily available to the ICANN Community to promptly identify problems, craft data-driven policy solutions, and measure the efficacy of implemented safeguards and ongoing initiatives. Furthermore, the next CCT Review Team will have a rich dataset on DNS abuse from which to measure safeguard efficacy.”</p>
What Other Projects Have an Impact on this?	<p>The DAAR project provides a system for studying and reporting on domain name registration and security threat (domain abuse) behavior across top-level domain (TLD) registries and registrars.</p>

Status

- ICANN org finds that recommendation 16 is feasible to implement and recommends that the Board accept this recommendation.
- ICANN org will continue to collect data and generate monthly reports on an ongoing basis.
- See below for a further analysis of ongoing work and data collection efforts conducted by ICANN org:

The purpose of DAAR is to provide verifiable and reproducible data to facilitate analyses that could be useful in making informed consensus policy decisions, and it is up to the ICANN community to determine whether or how to use the reports derived from DAAR-collected data in policy deliberations.

Data collected out of the DAAR system is currently being used to generate monthly reports on an ongoing basis. These reports are made public at <https://www.icann.org/octo-ssr/daar>. In alignment with the CCT Recommendation 16, DAAR currently uses a documented set of reputation list providers to identify and track reported domain names associated with a specific set of security threats and abuse behavior across all generic and some country code top-level domain registries. At the time of this writing, these reports are a point-in-time analysis of all TLDs for which data is available, however ICANN is in discussions with the community on ways to improve the reports, including providing different and/or additional statistical measures.

The DAAR reports do not (yet) associate names with specific registrars due to an inability to obtain data on the sponsoring registrar at scale. The identification of a sponsoring registrar for a given domain name is only publicly available via the WHOIS system, however querying the registry WHOIS servers is rate-limited by most, if not all, registry operators. ICANN org continues to try to identify ways in which sponsoring registrar data can be obtained in bulk to enable reporting on registrars as is done for registries.

It should be noted that data collected by DAAR related to security threats and abusive behavior are derived out of information collected by third-party reputation providers. While these data are publicly available (potentially at some cost), they invariably come with licensing terms that may or do prohibit ICANN org's reproduction of those data. ICANN org continues to investigate ways in which it can publish more detailed DAAR reports. However, in the interim, the DAAR system and output was specifically designed to be reproducible by interested parties, so those interested in more specifics than that which is available in the public reports have avenues in which they can explore DAAR data.

Internally, when clear outliers in terms of security threats or abusive behaviors become apparent within the DAAR data, the ICANN Office of the Chief Technology Officer (OCTO) staff notify ICANN Contractual Compliance. While the data DAAR collects is not, in and of itself, indicative of a security threat or abusive behavior, it does provide an indicator that additional scrutiny of the registry may be warranted.

ICANN org, through OCTO, continues to refine and evolve the DAAR system and is in discussions with the community on ways in which DAAR can be improved. It has begun to incorporate ccTLDs who volunteer to participate in DAAR and, as mentioned, are looking at modifying the DAAR reports to provide additional and/or different statistical measures.

In parallel, ICANN org, through OCTO, has initiated a project that uses similar reputation data, albeit limited to phishing and malware distribution threats, to identify potentially malicious domain names that match a set of keywords related to COVID-19. When a potentially malicious domain name is identified, it is reported to bodies, e.g., the registry and/or registrar, that can take appropriate action. While this project is initially focused on COVID-19-related abusive names, it can be reused anytime a high profile event results in a surge in domain name registrations. Should there be events with a similar profile to the COVID-19 pandemic in terms of domain name registrations, ICANN org will be able to identify and report potentially abusive names with high confidence and in a timely fashion in the future.

Recommendation 18 - In order for the upcoming WHOIS Review Team to determine whether additional steps are needed to improve WHOIS accuracy, and whether to proceed with the identity phase of the Accuracy Reporting System (ARS) project, ICANN should gather data to assess whether a significant percentage of WHOIS-related complaints applicable to new gTLDs relate to the accuracy of the identity of the registrant. This should include analysis of WHOIS accuracy complaints received by ICANN Contractual Compliance to identify the subject matter of the complaints (e.g., complaints about syntax, operability, or identity). The volume of these complaints between legacy gTLDs and new gTLDs should also be compared. ICANN should also identify other potential data sources of WHOIS complaints beyond those that are contractually required (including but not limited to complaints received directly by registrars, registries, ISPs, etc.) and attempt to obtain anonymized data from these sources. Future CCT Reviews may then also use these data.

Board action	“Place the recommendation in “Pending” status until such time that the Board receives the RDS-WHOIS2 Final Report and has an opportunity to consider, with ICANN org, the interdependency with this recommendation. Upon release of the RDS-WHOIS2 Final Report, the Board directs ICANN org to perform a gap analysis of the types of information available to the RDS-WHOIS2 and the information the CCT-RT recommended to be available to that team, and to provide the Board with inputs on whether additional work is required to address this recommendation 18. This will inform Board’s decision on next steps and whether this recommendation can be adopted to move into costing discussion phase of implementation. Note that the CCT-RT started its work long before the RDS-WHOIS2 Review began, and while the CCT-RT work was pending, the RDSWHOIS2 Review Team completed its work and plans to publish its Final Report shortly.”
CCT-RT Directed Recommendation to	ICANN organization to gather required data, and to provide data to relevant review teams to consider the results and, if warranted, to assess feasibility and desirability of moving to identity validation phase of WHOIS ARS project.
CCT-RT Objectives	To assess whether a significant percentage of WHOIS-related complaints to ICANN Contractual Compliance are applicable to new gTLDs related to the accuracy of the identity of the registrant by: <ul style="list-style-type: none"> ● Analyzing WHOIS accuracy complaints received by ICANN Contractual Compliance on syntax, operability and identity ● Comparing the volume of WHOIS accuracy complaints received by ICANN Contractual Compliance between legacy gTLDs and new gTLDs ● Identifying and analyzing WHOIS accuracy complaints received by Registries, Registrars, and ISPs
CCT-RT Success Measures	<ul style="list-style-type: none"> ● ICANN org provides RDS-WHOIS2 the CCT-RT recommended data ● RDS-WHOIS2 to analyze and consider the data provided to them by ICANN org to assess whether WHOIS accuracy needs to be improved and if ICANN should proceed with the identity phase of the Accuracy Reporting System (ARS) project, and provide their findings in their final report
What Other Projects Have an Impact on this?	

ICANN Org Findings

- ICANN org recommends that the Board accept Recommendation 18 because, based on the measures of success for Recommendation 18, this recommendation has been fulfilled and no further action is required.
- With regard to providing the recommended data, ICANN org found that the only gap in what the CCT-RT asked be made available to the RDS-WHOIS2 Review Team and what was made

available is the request for anonymized WHOIS inaccuracy complaint data from “registrars, registry operators, ISPs, etc.” However, ICANN org does not have this data, nor did the Review Team request it.

- In its Final Report, the RDS-WHOIS2 Review Team issued five recommendations related to improving RDS (WHOIS) data accuracy and/or continuation of the WHOIS Accuracy Reporting System (ARS). The RDS-WHOIS2 Review Team also noted that the identity phase of the WHOIS ARS was missing, but did not offer any additional recommendations on the topic.

Introduction

Recommendation 18 of the CCT-RT [final report](#) states: “In order for the upcoming WHOIS Review Team to determine whether additional steps are needed to improve WHOIS accuracy, and whether to proceed with the “identity” phase of the Accuracy Reporting System (ARS) project, ICANN should gather data to assess whether a significant percentage of WHOIS-related complaints applicable to new gTLDs relate to the accuracy of the identity of the registrant. This should include analysis of WHOIS accuracy complaints received by ICANN Contractual Compliance to identify the subject matter of the complaints (e.g., complaints about syntax, operability, or identity). The volume of these complaints between legacy gTLDs and new gTLDs should also be compared. ICANN should also identify other potential data sources of WHOIS complaints beyond those that are contractually required (including, but not limited to, complaints received directly by registrars, registries, ISPs, etc.) and attempt to obtain anonymized data from these sources.”

In its 1 March 2019 [resolution](#), the ICANN Board placed this recommendation in a “Pending” status “until such time that the Board receives the RDS-WHOIS2 Final Report and has an opportunity to consider, with ICANN org, the interdependency with this recommendation.” The resolution further directed ICANN org to “perform a gap analysis of the types of information available to the RDS-WHOIS2 and the information the CCT-RT recommended to be available to that team, and to provide the Board with inputs on whether additional work is required to address this Recommendation 18.” The resolution directed that this work be done upon publication of the RDS-WHOIS2 Final Report.

On 3 September 2019, the RDS-WHOIS2 Review Team published its [Final Report](#), which contained 22 consensus recommendations. On 25 February 2020, the Board took a [resolution](#) on the Final Report and issued a [scorecard](#) of its action on the recommendations. The Board accepted 15 of the recommendations, placed four into a “pending” status, passed two recommendation through to the GNSO Council for consideration, and rejected two recommendations. Five of the recommendations (R3.1, R3.2, R4.1, R4.2, and R5.1) relate directly to RDS (WHOIS) data accuracy and/or the WHOIS Accuracy Reporting System (ARS). The Board accepted recommendations R3.1 and R3.2, and placed R4.1, R4.2, and R5.1 into a “pending” status, pending the results of Board action on the EPDP Phase 2, Priority 2 topics.

Following the release of the RDS-WHOIS2 Review Team Final Report as well as Board action on the report, ICANN org has reviewed the recommendations and concluded its gap analysis, which is provided below.

Gap Analysis

ICANN org performed an initial gap analysis, as called for in the 1 March 2019 Board resolution, on the RDS-WHOIS2 Draft Report, released in August 2018. Upon publication of the Final Report, ICANN org concluded its gap analysis. The results of that analysis are provided below.

Recommendation 18 asks that WHOIS accuracy data from two sources be made available to the RDS-WHOIS2 Review Team, ICANN Contractual Compliance and other potential sources, including but not limited to registrars, registry operators, ISPs, etc.

With regard to WHOIS accuracy data from ICANN Contractual Compliance, all of the data that the CCT-RT requests be made available to the RDS-WHOIS2 Review Team were provided to the RDS-WHOIS2 Review Team during the course of its deliberations. These include the subject matter of the complaint (e.g., syntax, operability, or identity) and volume of complaints between legacy and new gTLDs. This [data](#) was made available to the RDS-WHOIS2 Review Team by ICANN Contractual Compliance in April 2018 in response to an inquiry from the RDS-WHOIS2 Review Team: “ICANN Contractual Compliance tracks and reports based on Syntax, Operability and Identity; more information about each category can be found at this link - <https://features.icann.org/compliance/dashboard/archives#annual-details> or on the WHOIS ARS reports. In addition, WHOIS Inaccuracy complaints are tracked for legacy and for new gTLDs. This data can be found in the monthly dashboards at this link: <https://features.icann.org/compliance/dashboard/report-list>”.

With regard to WHOIS inaccuracy data from other potential sources, including but not limited to registrars, registry operators, ISPs, etc., ICANN org previously provided [feedback](#) to the CCT-RT that registry operators and registrars are not contractually obligated to provide this data to ICANN. Further, ICANN has no contractual relationship with ISPs. As such, ICANN org does not have this data. It is important to note that the RDS-WHOIS2 Review Team did not request this data to inform its work.

The table below provides a summary of the gap analysis performed.

Data the CCT-RT Recommends ICANN Org Provides to the WHOIS-RDS2 RT	Was Data Provided to the WHOIS-RDS2 RT by ICANN Org?	Sources / Notes
Complaints received by ICANN Contractual Compliance by: <ol style="list-style-type: none"> 1. Syntax 2. Operability 3. Identity 	<ol style="list-style-type: none"> 1. Yes 2. Yes 3. Yes 	ICANN Contractual Compliance’s response to RDS-WHOIS2 Review Team inquiry: https://community.icann.org/download/attachments/82412261/Compliance%20questions%20-%20April%202018.pdf?version=1&modificationDate=1525162390751&api=v2
Volume of gTLD WHOIS inaccuracy complaints received by ICANN Contractual Compliance by: <ol style="list-style-type: none"> 1. Legacy gTLDs 2. New gTLDs 	<ol style="list-style-type: none"> 1. Yes 2. Yes 	ICANN Contractual Compliance’s response to RDS-WHOIS2 Review Team inquiry: https://community.icann.org/download/attachments/82412261/Compliance%20questions%20-%20April%202018.pdf?version=1&modificationDate=1525162390751&api=v2
Additional anonymized data of WHOIS complaints from: <ol style="list-style-type: none"> 1. Registrars 2. Registries 3. ISP 4. Other 	<ol style="list-style-type: none"> 1. No 2. No 3. No 4. No 	Registry operators and registrars are not contractually obligated to provide this data to ICANN. Further, ICANN has no contractual relationship with ISPs. As such, ICANN org does not have this data. It is important to note that the RDS-WHOIS2 Review Team did not request this data to inform its work.

RDS-WHOIS2 Review Team Recommendations on RDS (WHOIS) Data Accuracy and WHOIS Accuracy Reporting System (ARS)

The RDS-WHOIS2 Review Team issued five recommendations regarding RDS (WHOIS) data accuracy and/or the WHOIS ARS in its Final Report: R3.1, R3.2, R4.1, R4.2, and R5.1.

Recommendations R3.1 and R3.2 relate to RDS outreach and the education of the wider community on RDS (WHOIS) inaccuracy and reporting of inaccuracy. The Board accepted these recommendations. Recommendations R4.1, R4.2, and R5.1 relate more directly to the continuation of monitoring of RDS (WHOIS) data accuracy and the WHOIS ARS. Because the topics of RDS (WHOIS) data accuracy and WHOIS ARS will be considered in EPDP Phase 2, the Board placed each of these recommendations into a “pending” status, until such time that the Board has taken action on the EPDP Phase 2 recommendations.

Additionally, within its report, the RDS-WHOIS2 Review Team made specific references to the “identity phase” of the ARS, as called out in CCT-RT Recommendation 18. The RDS-WHOIS2 Review Team noted that identity accuracy checks are “still missing” from the WHOIS ARS reports and that Recommendation 6 from RDS-WHOIS1 regarding RDS (WHOIS) accuracy was only partially implemented. However, while the RDS-WHOIS2 Review Team did make recommendations regarding continuation of the WHOIS ARS (“or a comparable tool/methodology”), as noted above, the Review Team did not propose any additional recommendations specifically regarding identity checks.

Conclusion

With regard to the CCT-RT measure of success that ICANN org provide the recommended data to the RDS-WHOIS2 Review Team, ICANN org has found that the only gap in what the CCT-RT asked be made available to the RDS-WHOIS2 Review Team and what was made available is the request for anonymized WHOIS inaccuracy complaint data from “registrars, registry operators, ISPs, etc.” Given that the RDS-WHOIS2 Review Team has completed its work and did not request the data, the question could be posed to a future RDS-WHOIS Review Team as to whether this data might be useful for its review and analysis. It should be noted that it is unknown whether registrars and registry operators would voluntarily provide this data, but it would be a low-level effort for ICANN org to make the ask and provide any data received to the RDS-WHOIS2 or future RDS-WHOIS Review Teams. With regard to ISPs, ICANN could extend the same ask to the GNSO’s ISPCP for assistance.

Concerning the second measure of success that the RDS-WHOIS2 Review Team is able to “assess whether WHOIS accuracy needs to be improved and if ICANN should proceed with the identity phase of the Accuracy Reporting System (ARS) project”, ICANN org finds that the RDS-WHOIS2 Review Team has provided clear recommendations regarding RDS (WHOIS) data accuracy and the continuation of the WHOIS ARS, though it has chosen not to provide additional recommendations regarding the “identity phase”.

Based on the above, ICANN org recommends that the Board accept Recommendation 18 because this recommendation has been fulfilled and no further action is required. The ICANN org could pose the question to future RDS-WHOIS Review Teams as to whether WHOIS inaccuracy complaint data from “registrars, registry operators, ISPs, etc.” would be useful in their review and analysis.

Recommendation 20 - Assess whether mechanisms to report and handle complaints have led to more focused efforts to combat abuse by determining: (1) the volume of reports of illegal conduct in connection with the use of the TLD that registries receive from governmental and quasi-governmental agencies; (2) the volume of inquiries that registries receive from the public related to malicious conduct in the TLD; (3) whether more efforts are needed to publicize contact points to report complaints that involve abuse or illegal behavior within a TLD; and (4) what actions registries have taken to respond to complaints of illegal or malicious conduct in connection with the use of the TLD. Such efforts could include surveys, focus groups, or community discussions. If these methods proved ineffective, consideration could be given to amending future standard Registry Agreements to require registries to more prominently disclose their abuse points of contact and provide more granular information to ICANN. Once this information is gathered, future review teams should consider recommendations for appropriate follow up measures.

<p>Board action</p>	<p>“[This action pertains to a portion of the recommendation language - refer to bold text.] Place this recommendation in “Pending” status. The Board notes that this recommendation contains elements that are outside of ICANN org’s role (i.e. amendments to contractual agreements), while other elements of this recommendation are costly and will require community input for prioritization and cost/benefit analysis (i.e. data collection). Furthermore, the Board agrees that anti-abuse measures are very important and notes that ICANN org has already implemented initiatives to that end; namely, DAAR, Identifier Technology Health Indicators, and Spec 11(3)(B). The Board directs ICANN org to perform an analysis of the work/initiatives already underway to determine any gaps in work currently in progress and what work recommendation entails. The Board will then review the results of the analysis and determine the best action on this recommendation, insofar as it falls within the ICANN Board or org’s remit. Additionally, the outcome of the implementation of Recommendation 1 will inform the Board’s decision on next steps and whether this recommendation can be adopted to move into costing discussion phase of implementation.”</p>
<p>CCT-RT Directed Recommendation to</p>	<p>ICANN organization and future CCT Review Teams</p>
<p>CCT-RT Objectives</p>	<p>“The Consumer Research and Registrant surveys conducted by Nielsen have shown significant consumer concern related to abuse, which may undermine confidence and trust in the DNS. The broad strategic response should be to ensure that there are sufficiently effective mechanisms to report complaints that can be measured and assessed, and hence develop the capacity to manage and mitigate the causes of these complaints. There is concern from the Community that abuse data is not reported consistently to registries. Other concerns relate to ICANN’s own reporting of the complaints it receives. In particular, those concerns focus on the lack of granularity regarding the subject matter of the complaints and lack of information regarding the response to abuse complaints. Generally speaking, detailed information regarding the subject matter of complaints and responses to those complaints is sparingly captured and shared, missing, or unknown. Although the safeguards regarding making and handling complaints have been implemented, in light of the concerns noted above, it is unclear: (1) whether either law enforcement or the public is sufficiently aware that these complaint mechanisms exist; (2) how frequently these channels are used by the public and law enforcement to notify registries of illegal or abusive behavior; and (3) what impact these safeguards have had on their intended goal of mitigating DNS abuse. Hence, the review team’s recommendations relate to improved data gathering to inform future efforts to combat abuse within gTLDs. “</p>
<p>CCT-RT Success Measures</p>	<p>“More information is gathered to assess whether current complaint reporting mechanisms are effective, and that this information informs policy efforts involving amendment of standard Registry agreements. ICANN Contractual Compliance routinely records and makes available information about complaints by categories filed from registry and registrars, including responses to reports of abuse to original reporters.”</p>

What Other Projects Have an Impact on this?

DAAR, ITP, ITI

ICANN Org Findings

ICANN org notes that its ICANN Contractual Compliance team has received some responses from registries through contractual audits regarding the information requested in points 1, 2 and 4. However, Contractual Compliance has never published responses from individual contracted parties as this information is submitted confidentially. Furthermore, the information collected during the registry audit may not be as thorough as required by the recommendation.

The audits assess compliance with contractual obligations and the agreements do not require registries to collect and submit information requested in this recommendation. ICANN org does not have authority to demand information that registries are not required to collect or submit to org.

As a result, ICANN org recommends conducting a pilot survey to gather the requested data and review results and participation rates to determine whether the survey should be continued at regular intervals. Data collection efforts must be preceded by consultation with contracted parties on the approach and methods for a voluntary survey (or other means of contacting contracted parties), to ensure the most meaningful and useful data can be collected.

Regarding point 3 in the recommendation, ICANN Contractual Compliance receives complaints regarding registries' abuse contact information. 86 complaints were received regarding registry abuse contact between June 2018 to December 2019. Of these 86 complaints, there were zero valid complaints.

Resources & Cost Requirements

ICANN org time	As noted, ICANN org recommends that a pilot voluntary survey be conducted to obtain the requested information. If a voluntary survey is conducted, this would not require external vendors or outsourced knowledge, but rather can be implemented by ICANN org resources. Based on results of the pilot survey and determination of next steps, additional resources may or may not be required.
Professional services	None
Systems needs	None
Community resources	Community resources would be required for participation in the voluntary survey and providing the requested information.
Cost Estimate	None; Use of existing ICANN org resources for pilot. Based on results of pilot and determination regarding next steps, additional resources may or may not be required.

Timing

The duration required to support implementation of this recommendation via a pilot survey is estimated to be, as follows:

Activity	Deliverable	Estimated Duration
Questionnaire development	Survey document	8 weeks

Data collection	Data from completed surveys	4-6 weeks
Data analysis	Analysis of data from completed surveys	8 weeks
Report writing & publication	Report of survey results	8 weeks

Recommendation 23 - ICANN should gather data on new gTLDs operating in highly-regulated sectors to include the following elements:

- A survey to determine: 1) the steps registry operators are taking to establish working relationships with relevant government or industry bodies; and 2) the volume of complaints received by registrants from government and regulatory bodies and their standard practices to respond to those complaints.
 - A review of a sample of domain websites within the highly-regulated sector category to assess whether contact information to file complaints is sufficiently easy to find.
 - An inquiry to ICANN Contractual Compliance and registrars/resellers of highly regulated domains seeking sufficiently detailed information to determine the volume and the subject matter of complaints regarding domains in highly regulated industries.
 - An inquiry to registry operators to obtain data to compare rates of abuse between those highly-regulated gTLDs that have voluntarily agreed to verify and validate credentials to those highly-regulated gTLDs that have not.
 - An audit to assess whether restrictions regarding possessing necessary credentials are being enforced by auditing registrars and resellers offering the highly-regulated TLDs (i.e., can an individual or entity without the proper credentials buy a highly-regulated domain?).
- To the extent that current ICANN data collection initiatives and compliance audits could contribute to these efforts, we recommend that ICANN assess the most efficient way to proceed to avoid duplication of effort and leverage current work.

Board action	“Place the recommendation in “Pending” status and request ICANN org to provide a report on volume and nature of complaints received regarding gTLDs operating in highly-regulated sectors. This report will inform Board’s decision on next steps and whether the data warrants conducting audits or requesting further information from contracted parties. Additionally, the outcome of the implementation of Recommendation 1 will inform the Board’s decision on next steps and whether this recommendation can be adopted to move into costing discussion phase of implementation.”
CCT-RT Directed Recommendation to	ICANN organization, New gTLD Subsequent Procedures PDP Working Group
CCT-RT Objectives	“ICANN is embarking on several data gathering initiatives that may shed light on some of these issues, including the Domain Abuse Activity Reporting Project, the gTLD Marketplace Health Index, and the Identifier Technology Health Indicators project. Moreover, ICANN Contractual Compliance is expanding its audit functions to include additional examination of compliance with certain safeguards. Hence, consideration should be given to assessing whether ICANN’s ongoing data collection and Contractual Compliance initiatives could be leveraged to implement parts of this recommendation.”
CCT-RT Success Measures	“This recommendation will be successful if additional data is generated to inform ongoing policy development processes regarding the effectiveness of ICANN contract provisions intended to safeguard the public, particularly as they relate to new gTLDs operating in highly-regulated sectors, and whether the current contractual safeguards sufficiently protect the public against the higher risks associated with these domains. In particular, it is vital to determine whether the current safeguard requiring that registrants possess appropriate credentials for gTLDs operating in highly-regulated sectors is working as intended. Success in this regard would be to generate an assessment of complaints relating to this safeguard, including information on how this safeguard is enforced, among other factors, in order to determine its effectiveness.”
What Other Projects Have an Impact on this?	

ICANN org, through its Contractual Compliance team currently reports on volume and nature of complaints received regarding gTLDs operating in highly-regulated sectors. Existing monthly reports are published [here](#).

Of the 20 complaints received related to Highly Regulated Sectors between June 2018 to December 2019, there was 1 valid complaint for Whois Inaccuracy. In total, ICANN Contractual Compliance received approximately 40,000 complaints between June 2018 to December 2019.

The number of valid complaints received by ICANN Contractual Compliance is insignificant, which may indicate there is not a significant issue in the highly regulated TLDs.

It may be possible to obtain the data via a voluntary survey to capture information regarding the following:

- “steps registry operators are taking to establish working relationships with relevant government or industry bodies”;
- “the volume of complaints received by registrants from government and regulatory bodies and their standard practices to respond to those complaints”; and;
- “data to compare rates of abuse between those highly-regulated gTLDs that have voluntarily agreed to verify and validate credentials to those highly-regulated gTLDs that have not.”

With respect to “an inquiry to ICANN Contractual Compliance and registrars/resellers of highly regulated domains seeking sufficiently detailed information to determine the volume and the subject matter of complaints regarding domains in highly regulated industries”, while ICANN org already reports on this data, as indicated above, it may be possible to obtain this data from registrars through a voluntary survey. It is important to note that ICANN does not have a formal relationship with resellers nor has the means to contact them. Obtaining this data, as a result, would only be feasible if conducted through registrars.

ICANN org recommends conducting a pilot survey to gather the requested data, and reviewing results and participation rates to determine whether the survey should be continued at regular intervals. This survey would be done initially as a pilot. Following completion, ICANN org will review the results before determining whether to proceed with the survey on an ongoing basis. Data collection efforts must be preceded by consultation with contracted parties on the approach and methods for a voluntary survey (or other means of contacting contracted parties), to ensure the most meaningful and useful data can be collected.

Additionally, ICANN org can conduct “a review of a sample of domain websites within the highly-regulated sector category to assess whether contact information to file complaints is sufficiently easy to find”.

With respect to conducting “[a]n audit to assess whether restrictions regarding possessing necessary credentials are being enforced by auditing registrars and resellers offering the highly-regulated TLDs”, ICANN org’s Contractual Compliance team conducts audits, and these are limited to two per year by the Registry Agreement. Compliance data currently shows that there is insignificant risk associated with highly-regulated TLDs. It is important to ensure ICANN org’s limited resources and audit efforts are used to benefit the public interest and focus on obligations that have the largest potential impact to the Safety, Security and Resiliency of the DNS. Contractual Compliance will continue to monitor complaint trends and plan for an audit if the trends indicate a risk in this area.

Resources & Cost Requirements

ICANN org time	As noted, ICANN org recommends that a pilot voluntary survey be conducted to obtain the requested information. If a voluntary survey
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	is conducted, this would not require external vendors or outsourced knowledge, but rather can be implemented by ICANN org resources. Based on results of the pilot survey and determination of next steps, additional resources may or may not be required. Data collection efforts must be preceded by consultation with contracted parties on the approach and methods for a voluntary survey (or other means of contacting contracted parties), to ensure the most meaningful and useful data can be collected.
Professional services	None
Systems needs	None
Community resources	Community resources would be required for participation in the voluntary survey and providing the requested information.
Cost Estimate	None; Use of existing ICANN org resources for pilot. Based on results of pilot and determination regarding next steps, additional resources may or may not be required.

Timing

The duration required to support implementation of this recommendation via a pilot survey is estimated to be as follows:

Activity	Deliverable	Estimated Duration
Questionnaire development	Survey document	8 weeks
Data collection	Data from completed surveys	4-6 weeks
Data analysis	Analysis of data from completed surveys	8 weeks
Report writing & publication	Report of survey results	8 weeks

Recommendation 24 - a. Determine whether ICANN Contractual Compliance should report on a quarterly basis whether it has received complaints for a registry operator’s failure to comply with either the safeguard related to gTLDs with inherent governmental functions or the safeguard related to cyberbullying. b. Survey registries to determine: 1) whether they receive complaints related to cyberbullying and misrepresenting a governmental affiliation; and 2) how they enforce these safeguards.

Board action	Place the recommendation in “Pending” status and request ICANN org to identify where there is a gap between work currently in progress and what the recommendation entails. Once the gap analysis is completed, ICANN org will share the findings with the community to ensure alignment on next steps and any changes that need to be made. This analysis will inform the Board’s decision on next steps and whether this recommendation can be adopted to move into costing discussion phase of implementation. Additionally, the outcome of the implementation of Recommendation 1 will inform the Board’s decision on next steps and whether this recommendation can be adopted to move into costing discussion phase of implementation.
CCT-RT Directed Recommendation to	ICANN organization
CCT-RT Objectives	“The lack of information about whether ICANN Contractual Compliance or registries have received complaints related to these safeguards and lack of consequences for failure to comply with these safeguards make it difficult to assess their effectiveness in mitigating the risks they were intended to address. Gathering this information would assist future policy development processes by identifying whether the current safeguards are meeting their intended goal.”
CCT-RT Success Measures	“These recommendations will be successful if they generate data that indicates the magnitude of complaints regarding cyberbullying and misrepresenting governmental affiliations and provide information regarding how registries enforce these safeguards.”
What Other Projects Have an Impact on this?	

ICANN Org Findings

ICANN org, through its Contractual Compliance team, currently reports this data on a monthly basis. Between June 2018 to December 2019, ICANN Contractual Compliance received two complaints related to governmental functions or the safeguard related to cyberbullying. Of the two received complaints, there were zero valid complaints regarding either the safeguard related to gTLDs with inherent governmental functions or the safeguard related to cyberbullying.

ICANN Contractual Compliance can and has performed audits of the TLDs and has reviewed if the safeguard requirements are in place per the Registry Agreement <https://www.icann.org/en/system/files/files/resolutions-new-gtld-annex-2-05feb14-en.pdf>. However, ICANN org does not have the ability to survey registries if not allowed under the registry agreement.

Although it is not possible to obtain the requested data in “b.” via ICANN Contractual Compliance, the data could potentially be obtained via a survey conducted by GDS. Accordingly, ICANN org recommends that a voluntary pilot survey be conducted to obtain information regarding enforcement of safeguards. Review results and participation rates should then be reviewed to determine whether the survey should be continued at regular intervals. Data collection efforts must be preceded by consultation with contracted parties on the approach and methods for a voluntary survey (or other means of contacting contracted parties), to ensure the most meaningful and useful data can be collected.

Resources & Cost Requirements

ICANN org time	As noted, ICANN org recommends that a pilot voluntary survey be conducted to obtain the requested information. If a voluntary survey is conducted, this would not require external vendors or outsourced knowledge, but rather can be implemented by ICANN org resources. Based on results of the pilot survey and determination of next steps, additional resources may or may not be required. Data collection efforts must be preceded by consultation with contracted parties on the approach and methods for a voluntary survey (or other means of contacting contracted parties), to ensure the most meaningful and useful data can be collected.
Professional services	None
Systems needs	None
Community resources	Community resources would be required for participation in the voluntary survey and providing the requested information.
Cost Estimate	None; Use of existing ICANN org resources for pilot. Based on results of pilot and determination regarding next steps, additional resources may or may not be required.

Timing

The duration required to support implementation of this recommendation via a pilot survey is estimated to be, as follows:

Activity	Deliverable	Estimated Duration
Questionnaire development	Survey document	8 weeks
Data collection	Data from completed surveys	4-6 weeks
Data analysis	Analysis of data from completed surveys	8 weeks
Report writing & publication	Report of survey results	8 weeks

Recommendation 26 - A study to ascertain the impact of the New gTLD Program on the costs required to protect trademarks in the expanded DNS space should be repeated at regular intervals to see the evolution over time of those costs. The CCT Review Team recommends that the next study be completed within 18 months after issuance of the CCT Final Report, and that subsequent studies be repeated every 18 to 24 months. The CCT Review Team acknowledges that the Nielsen survey of INTA members in 2017 intended to provide such guidance yielded a lower response rate than anticipated. We recommend a more user friendly and perhaps shorter survey to help ensure a higher and more statistically significant response rate.

<p>Board action</p>	<p>“Place the recommendation in “Pending” status and direct ICANN org to do an in-depth analysis of the value of data, the usefulness of the study, the cost associated with conducting the studies and the interdependencies with other relevant studies. Upon the completion of this analysis, and given all other studies requested in the CCT Final Report, the community should determine the priority levels for all relevant studies. The Board notes that the cost and prioritization could impact timing and ability to meet the requested 18-month implementation. Additionally, the outcome of the implementation of Recommendation 1 will inform the Board’s decision on next steps and whether this recommendation can be adopted to move into costing discussion phase of implementation.”</p>
<p>CCT-RT Directed Recommendation to</p>	<p>ICANN organization</p>
<p>CCT-RT Objectives</p>	<p>In its Final Report, the CCT-RT noted that the evolution of costs required to protect trademarks over time will provide a more precise picture of the effectiveness of RPMs generally in the DNS. The CCT-RT’s scope includes examining the effectiveness of safeguards designed to mitigate issues in the New gTLD Program. The review team looked at whether rights protection mechanisms in the New gTLD Program have helped to mitigate the issues around the protection of trademark rights and consumers, and sought to obtain data to help assess the impact of the New gTLD Program on the cost and effort required to protect trademarks in the DNS.</p> <p>The CCT-RT acknowledged that the Nielsen survey of INTA members in 2017 intended to provide such guidance yielded a lower response rate than anticipated. Thus, the CCT-RT recommended a more user-friendly and perhaps shorter survey to help ensure a higher and more statistically significant response rate.</p> <p>The review team collected metrics such as the number of UDRP and URS cases filed, but noted that this reflects only part of the costs incurred by trademark holders, for example, “significant enforcement costs may have been incurred in the form of defensive registrations, blocking, monitoring, cease and desist letters, and court action (although the review team did not have data to evaluate this).”</p> <p>The review team also referenced data in the Trademark Clearinghouse independent review report, and noted the research did not provide quantifiable information on the costs and benefits associated with the present state of the TMCH services. Indeed, the potential costs and benefits of expanding or altering the way the services function needed a concrete cost-benefit analysis, which was outside the scope of the report.</p>
<p>CCT-RT Success Measures</p>	<p>“The results of future impact studies should provide significantly more data to the relevant working groups currently looking into RPMs and the TMCH, as well as to future working groups, thereby benefiting the Community as a whole. Recommendations would then also be able to evolve appropriately in future CCT Review Teams.”</p>

What Other Projects Have an Impact on this?

GNSO PDP on Review of All Rights Protection Mechanisms in All gTLDs - <https://gns0.icann.org/en/group-activities/active/rpm>

ICANN Org Findings

- ICANN org finds that recommendation 26 is feasible to implement and recommends that the Board accept Recommendation 26. ICANN org finds that there is opportunity to work with relevant partners to conduct additional surveys on the impact of the New gTLD Program on trademark enforcement.
- In assessing the value of the data and the usefulness of the study, ICANN org finds that the INTA survey offered some findings with respect to the costs of trademark enforcement in the new gTLDs to trademark holders and the efficacy of Rights Protection Mechanisms (RPMs).
- ICANN org also notes that INTA’s Cost Impact Survey focused on quantitative research and analysis of defensive registrations and may not provide a holistic picture into the effects of the New gTLD Program on trademark owners. In addition, there were various challenges associated with obtaining meaningful and statistically significant data.
- INTA has indicated it plans to conduct further surveys on the impact of the new gTLD program on trademark enforcement. Based on initial discussions, there would be an opportunity to work collaboratively with INTA. INTA has indicated that it would need one year of lead time before kicking off the survey as well as a 6-month formal written request to initiate the study.

Results of Analysis

The recommendation asks that the Cost Impact Study commissioned by the International Trademark Association (INTA) on the impact that the New gTLD Program has had on enforcement costs for intellectual property owners is repeated every 18 to 24 months. This study, in part, was in response to a request from the CCT Review Team. INTA's Cost Impact Study was published in 2017 and took the form of a survey directed to 1,096 entities considered “regular” members under INTA’s membership structure. Survey participants were asked to estimate all costs associated with protecting their trademarks in the DNS over a two-year period (2015 and 2016). Designed and administered by Nielsen, 93 respondents entered the survey and 33 completed it.

Information collected in preparation for responding to the Cost Impact Survey:

- Number of domains registered under legacy and new gTLDs
- Reasoning behind registering such domains and possible alternatives
- Number of trademark claims notices received and estimated cost associated with claims notices
- Estimated cost spent on general Internet monitoring of trademarks to identify infringing domains
- Estimated cost spent on any of the following: cease and desist letters, UDRP proceedings, civil actions after adverse UDRP rulings, URS proceedings, ACPA lawsuits, and other trademark lawsuits resulting from a new gTLD
- Estimated cost spent on pursuing action against registrars and registries
- Company policy with regards to premium pricing for domain names

Key takeaways from the Cost Impact Survey:

- Registrations by trademark holders in New gTLDs are overwhelmingly defensive

- The New gTLD Program has increased the overall costs of trademark defense with internet monitoring and diversion tactics
- Domain names registered by brand owners in new gTLDs are commonly parked
- Brand activity appears to be the driving factor for costs, not company size
- Trademark Clearinghouse (TMCH) registrations, Sunrise Periods and RPMs are helpful
- Premium pricing for domain names is evaluated on a case-by-case basis
- Registrant information is difficult to obtain
- Defense, not choice, is driving purchases

INTA also shared feedback from survey respondents regarding the difficulty and investment of time and resources that was needed to properly respond to the survey. Challenges associated with the completion of the Cost Impact Survey, which were also highlighted by the CCT Review Team and RPM PDP Working Group, include:

- Too long/time consuming (5-10 hrs.)
- Inconsistent time allocations given for responses
- Registration and claim data not tracked as indicated in survey
- Information is too confidential to share even with NDA/3rd party provider
- Information dispersed throughout company
- Worksheet did not correspond to all of the questions that required data – in response to this point INTA plans to update the worksheet and provide it as a tool for its members.

In addition to the challenges reported by survey participants, three out of five public comments received on this recommendation generally supported conducting this type of impact study (BC, IPC, and ALAC):

- “The Intellectual Property Constituency (IPC) agrees it is critical to the credibility of any study to have a statistically significant set of data. That said, anecdotal data, or survey data that may fall short of achieving true statistical significance, can still be useful to inform policy discussions, and should not necessarily be dismissed out of hand.”
- “The Registries Stakeholder Group (RySG) recognizes the value in conducting this type of impact study, and that the complexity of the INTA Impact Study made it difficult for many respondents to complete the questionnaire. Going forward, ICANN should take steps to ensure that any studies conducted are optimized to solicit meaningful and statistically significant data from a representative sample of respondents.”
- “The ICANN Business Constituency (BC) ranks this recommendation as very important”
- However, the Non Commercial Stakeholder Group (NCSG) asks that “ICANN also conduct, and regularly repeat, a full impact study on trademark owners’ abuse of rights protection mechanisms in ICANN policies to restrict free expression rights, and another full impact study to quantify the costs of these measures on domain name suppliers and consumers.”
- Neustar believes it is “premature to recommend a study be repeated without assessing the outcomes and viability of that study.”

In assessing the value of the data and the usefulness of the study, ICANN org agrees that the survey offers some findings with respect to the costs of trademark enforcement in the new gTLDs to trademark holders. In addition, obtaining such data may make it possible to identify trends and conduct benchmarking. While only 33 respondents completed the survey due to various challenges, the study also provides information on the efficacy of RPMs, and it has been reviewed and discussed by the RPM PDP Working Group.

However, based on insight shared by survey participants, the complexity of the questions, the length of the survey, and the survey methodology all discouraged completion of the survey. Given the low response rate, INTA notes that the results are an indicator of a trend and not the trend itself. As such, the CCT-RT

recommended a more user-friendly and perhaps shorter survey to help ensure a higher and more statistically representative response rate.

ICANN org notes that INTA's Cost Impact Survey was more focused on quantitative research and analysis of defensive registrations rather than qualitative data collection. Although obtaining both quantitative and qualitative data may be challenging, in order to gain a deeper insight into the effects of the New gTLD Program on trademark owners, using a combination of qualitative and quantitative research would improve the assessment by ensuring that the limitations of one type of data are balanced by the strengths of another. Furthermore, it would provide a more holistic picture to future review teams and relevant working groups looking into RPMs and the TMCH.

INTA has indicated they plan to conduct further surveys on the impact of the new gTLD program on trademark enforcement. Based on initial discussions, INTA is open to new approaches to collect relevant information as well as to increase survey response rates, and would find it helpful if more clarification and guidance is provided from ICANN org to help define future scope, and whether other cost categories of trademark defense should be considered to assess what additional costs and efforts have been required to protect trademarks in the DNS. As such, there would be an opportunity to work collaboratively with INTA, and greater flexibility in terms of what is implemented.

Based on the above, ICANN org finds that this recommendation is feasible to implement and recommends that the Board accept this recommendation. ICANN org notes that this recommendation could be implemented in collaboration with a relevant partner such as INTA in order to gain a deeper insight into the effects of the New gTLD Program on trademark enforcement.

Costs of Implementation

Implementing this recommendation without collaborating with INTA would require contracting with a vendor, the costs of which would entail costs for implementation as well as ongoing costs for regular reporting of the requested data. Based on costs from previous ICANN-commissioned studies, such as the Independent Review of the TMCH and the Registrant and Consumer-end user Surveys, a cost impact study of trademark holders is estimated at USD 300,000. The cost of follow-up assessments conducted as part of the study may be lower and are estimated at USD 150,000 each time the assessment is performed. Cost information provided here is based on high-level estimates of possible costs from external vendors and comparable projects, and may change based on additional requirements.

Implementation would also require contracting with a vendor qualified to develop a survey questionnaire for trademark holders, which can be appropriately customized (e.g., additions, modifications, or deletions of suggested questions) and conducted at regular intervals to inform future review teams and other efforts. To perform this study, ICANN org would also need to rely on professional assistance to identify the most effective and efficient method of reaching out to and surveying trademark holders.

In order to ascertain the impact of the New gTLD Program on the cost and effort required to protect trademarks in the DNS, Recommendation 26 suggests conducting a cost impact survey of trademark holders every 18 to 24 months to see the evolution over time as the New gTLD Program continues to evolve and new gTLD registrations increase. While ICANN org agrees that surveys should be conducted at regular intervals to ensure meaningful baseline data for future analysis as well as providing current information, ICANN org notes that the higher the frequency a survey is administered, the greater the cost.

If the goal is to measure change, less frequent surveys, such as every two years, would also provide more valuable data. In addition, given the challenges associated with completing the survey and initial discussions with potential vendors on other surveys recommended by the CCT Review Team, reducing the survey

cadence (frequency) and length is useful for reducing attrition and promotes higher cooperation from respondents.

Alternatively, given that INTA plans to commission further studies of their members with respect to trademark enforcement in the new gTLDs to brand owners, ICANN org could collaborate with INTA and costs associated with the survey would likely be covered by INTA, as was done in the previous cost impact survey. The costs could be supplemented as needed by ICANN org. Based on recent discussions with INTA, the cost of the study is estimated between USD 50,000 and USD 100,000. ICANN org could work with INTA and their selected vendor to collect this data from INTA members, which reflects the experience of trademark holders. The selected provider would be expected to closely consult with ICANN org as well as future CCT Review Teams and any other entities involved throughout the duration of the project, and to administer the survey in accordance with proposed timeline and methods.

Timing

The duration required to support implementation of this recommendation may vary according to the complexity of the agreed work. Based on the timelines of comparable projects, a rough estimate for the first wave of the surveys is shown below.

As the surveys are intended to be repeated on a regular basis, costs for regular reporting of this data could be reduced by entering into a long-term contract with a provider, as well as allowing for more efficiency and accumulation of experience over time.

Activity	Deliverable	Estimated Duration
Procurement process	Agreement with contractor	20 weeks
Questionnaire development	Survey document	20 weeks
Survey translations and testing	Survey ready to field	5 weeks
Data collection & analysis	Data from completed surveys	25 weeks
Drafting of survey results	Report of survey results	10 weeks

3. Recommendations for which Additional Time is Required

Recommendation 2 - Collect wholesale pricing for legacy gTLDs. Recommendation 3 - Collect transactional pricing for the gTLD marketplace. Recommendation 4 - Collect retail pricing for the domain marketplace. Recommendation 5 - Collect secondary market data.	
Board action	<p>“Place the recommendation in “Pending” status due to questions raised about the value of the data. The Board directs ICANN org, through engagement of a third party, to conduct an analysis to identify what types of data would be relevant in examining the potential impacts on competition and, whether that data is available, and how it could be collected in order to benefit the work of future CCT Review Teams. This analysis will inform the Board’s decision on next steps and whether this recommendation can be adopted to move into costing discussion phase of implementation.”</p>
CCT-RT Directed Recommendation to	<p>ICANN organization</p>
CCT-RT Objectives	<p>Recommendation 2: “ICANN could work with an appropriate contractor and registry operators to acquire wholesale price information from both legacy and new gTLD registries on a regular basis, including at least a sample of transactional data. Transactional data is essential to allow analysis of the cost of similar strings across TLDs, and to understand the role of promotional pricing by registries. Due to the sensitive nature of this data, ICANN should provide strong assurances that the data would be treated on a confidential basis, including collecting the data under a nondisclosure agreement. In the event that ICANN is unable to establish a voluntary framework for sharing this information, this may require amendment to the Base Registry Agreement for legacy gTLDs.”</p> <p>Recommendation 3: “ICANN or an outside contractor should attempt to acquire at least some samples of wholesale price information from registries on a regular basis and provide necessary assurances that the data would be treated on a confidential basis. The data could then be used for analytic purposes by the ICANN organization and by others that execute nondisclosure agreements.”</p> <p>Recommendation 4: “ICANN does not currently make use of retail price data that can be obtained directly from public sources such as https://tld-list.com/ and https://namestat.org. We recommend that ICANN develop the capability to analyze these data on an ongoing basis. Alternatively, an amendment to the Registrar Accreditation Agreement would ensure the availability of this data with all due diligence to protect competitive information.”</p> <p>Recommendation 5: “ICANN should engage with the secondary market community to better understand pricing trends. Ideally, ICANN would be able to be able to obtain long-term transactional data that would allow it to evaluate whether the price of similar domain names was increase or decreasing over time, and whether there was any relationship to the introduction of new gTLDs. Given that it may be difficult to obtain such data, aggregated data that show per-TLD trends or overall trends in market pricing that take into consideration the introduction of new gTLDs would still be an improvement over the current limited data on pricing dynamics in legacy gTLDs.”</p>

CCT-RT Success Measures	<p>Recommendation 2: “The ability for a third-party economic study to establish a meaningful understanding of (1) wholesale pricing in legacy gTLDs; (2) the role of promotional pricing in the marketplace; and (3) the value of individual second-level labels across various TLDs.”</p> <p>Recommendation 3-4-5: “The availability of relevant data for use by the ICANN organization, contractors, and the ICANN community for its work in evaluating competition in the DNS marketplace.”</p>
What Other Projects Have an Impact on this?	<p>Domain Name Health Indicators look at the market from a variety of metrics defined by the community; however, these do not currently incorporate pricing data.</p>

Status

The Board has requested third-party expertise to inform further action on these recommendations. ICANN org will shortly be releasing the requested analysis, performed by an experienced economist, to identify the types of data that would be indicative of competition in the TLD marketplace. ICANN org is finalizing its assessment of the availability of the types of data identified, and will release the report for further public input regarding the data points identified.

Recommendation 14 - Consider directing ICANN organization, in its discussions with registries, to negotiate amendments to existing Registry Agreements, or in consideration of new Registry Agreements associated with subsequent rounds of new gTLDs, to include provisions in the agreements to provide incentives, including financial incentives for registries, especially open registries, to adopt proactive anti-abuse measures.

Board action	“Place this recommendation in “Pending” status. The Board directs ICANN org to facilitate community efforts to develop a definition of “abuse” to inform further action on this recommendation. To negotiate “anti-abuse measures”, a common understanding of what “abuse” means must first be reached.”
CCT-RT Directed Recommendation to	The ICANN Board, the Registry Stakeholders Group, the Registrar Stakeholders Group, the Generic Names Supporting Organization, and the Subsequent Procedures PDP WG.
CCT-RT Objectives	“The ICANN Board should consider urging ICANN organization to negotiate with new and legacy gTLD registries and registrars to include in the registry agreements fee discounts for registry operators with open registration policies and who implement proactive measures to prevent DNS Security Abuse in their zone. ICANN should verify compliance with incentive programs to ensure bad actors are not receiving incentives despite acting in bad faith. The adoption of proactive anti-abuse measures in exchange for incentives should not form the basis for shifting liability for underlying abuse incidents to the registry operator.”
CCT-RT Success Measures	“More registries and registrars, even those with open registration policies, adopting proactive anti-abuse measures that result in measurable decreases in the overall rates of DNS Security Abuse in their zones.”
What Other Projects Have an Impact on this?	Cross-community dialogue on DNS abuse.

Status

Community discussions remain ongoing in an attempt to reach a common community understanding of what is DNS abuse and related terms, as well as best practices that the DNS industry could adopt, expand or improve upon. A cross-community plenary session involving representatives from the Registries Stakeholder Group (RySG), Registrars Stakeholder Group (RrSG), Business Constituency (BC), Non-Commercial Stakeholder Group (NCSG), Governmental Advisory Committee (GAC) and Security & Stability Advisory Committee (SSAC) was held at ICANN66 in Montreal in November 2019. On 22 June 2020, a follow-up plenary session was held at ICANN68 involving representatives from the RySG, RrSG, Commercial Stakeholder Group (CSG), GAC, SSAC and the Country-Code Names Supporting Organization (ccNSO). The SSAC has also recently formed a work party that is aiming to provide a framework that can help guide community discussions on possible policies to combat DNS Abuse. On 17 June 2020, the RrSG and RySG also shared a proposed definition of DNS abuse, based on the Framework to Address Abuse that had been developed by a number of Contracted Parties in an effort to advance these important discussions. The outcome of these ongoing community discussions will serve to inform any subsequent policy work.

ICANN org is not in a position to provide an anticipated completion date for this action given the dependency on the community’s agreement on what does, and does not, constitute “abuse” as well as possible next steps for any policy or other community work on this topic.

Recommendation 15 - ICANN Org should, in its discussions with registrars and registries, negotiate amendments to the Registrar Accreditation Agreement and Registry Agreements to include provisions aimed at preventing systemic use of specific registrars or registries for DNS Security Abuse. With a view to implementing this recommendation as early as possible, and provided this can be done, then this could be brought into effect by a contractual amendment through the bilateral review of the Agreements. In particular, ICANN should establish thresholds of abuse at which compliance inquiries are automatically triggered, with a higher threshold at which registrars and registries are presumed to be in default of their agreements. If the community determines that ICANN org itself is ill-suited or unable to enforce such provisions, a DNS Abuse Dispute Resolution Policy (DADRP) should be considered as an additional means to enforce policies and deter against DNS Security Abuse. Furthermore, defining and identifying DNS Security Abuse is inherently complex and would benefit from analysis by the community, and thus we specifically recommend that the ICANN Board prioritize and support community work in this area to enhance safeguards and trust due to the negative impact of DNS Security Abuse on consumers and other users of the Internet.

Board action	“Place this recommendation in “Pending” status. The Board directs ICANN org to facilitate community efforts to develop a definition of “abuse” to inform further action on this recommendation. To negotiate amendments to address DNS Security Abuse measures, a common understanding of what “abuse” means must first be reached.”
CCT-RT Directed Recommendation to	The ICANN Board, the Registry Stakeholders Group, the Registrar Stakeholders Group, the Generic Names Supporting Organization and the Subsequent Procedures PDP WG
CCT-RT Objectives	“The ICANN Board should direct ICANN Org to negotiate amendments to the Registrar Accreditation Agreement and Registry Agreement provisions aimed at preventing DNS Security Abuse. Such language should impose upon registries and registrars, and, through downstream contract requirements their affiliated entities such as resellers, a duty to prevent wide-scale DNS Security Abuse and implement specific measures to reduce malicious conduct whereby ICANN may suspend registrars and registry operators found to be associated with unabated, abnormal and extremely high rates of DNS Security Abuse. It is important for ICANN Org to gather relevant data, conduct analysis, and act on actionable information. Accordingly, ICANN should initiate an investigation into a contracted party’s direct or indirect (such as through a reseller) involvement with systemic DNS Security Abuse. ICANN should make use of well-regarded abuse/black lists and establish an initial threshold at which compliance inquiries are automatically generated. [...]”
CCT-RT Success Measures	“1) Contractual language is adopted which empowers ICANN to investigate and engage in enforcement actions against registries and registrars associated with systemic DNS Security Abuse such that there are no contracted parties serving as enablers of systemic DNS Security Abuse for which ICANN cannot bring an enforcement action. 2) A DADRP is created if there is an area of DNS Security Abuse that ICANN Org is unable to address 3) There exist no gTLD or registrar with systemic high levels of DNS Security Abuse (>3%). 4) The total volume of DNS Security Abuse decreases.”
What Other Projects Have an Impact on this?	Cross-community dialogue on DNS abuse.

Status

Community discussions remain ongoing in an attempt to reach a common community understanding of what is DNS abuse and related terms, as well as best practices that the DNS industry could adopt, expand or improve upon. A cross-community plenary session involving representatives from the Registries Stakeholder Group (RySG), Registrars Stakeholder Group (RrSG), Business Constituency

(BC), Non-Commercial Stakeholder Group (NCSG), Governmental Advisory Committee (GAC) and Security & Stability Advisory Committee (SSAC) was held at ICANN66 in Montreal in November 2019. On 22 June 2020, a follow-up plenary session was held at ICANN68 involving representatives from the RySG, RrSG, Commercial Stakeholder Group (CSG), GAC, SSAC and the Country-Code Names Supporting Organization (ccNSO). The SSAC has also recently formed a work party that is aiming to provide a framework that can help guide community discussions on possible policies to combat DNS Abuse. On 17 June 2020, the RrSG and RySG also shared a proposed definition of DNS abuse, based on the Framework to Address Abuse that had been developed by a number of Contracted Parties in an effort to advance these important discussions. The outcome of these ongoing community discussions will serve to inform any subsequent policy work.

ICANN org is not in a position to provide an anticipated completion date for this action given the dependency on the community's agreement on what does, and does not, constitute "abuse" as well as possible next steps for any policy or other community work on this topic.

4. Recommendation 1

Recommendations 6, 7, 8, 11, 13, 16, 20, 23, 24, and 26 were placed into pending status in part to allow ICANN org, through the implementation of Recommendation 1, to address data collection issues in a holistic manner. In its acceptance of Recommendation 1, the Board specified a framework of data elements to be discussed with the community in relation to specific CCT-RT data collection recommendations placed in a Pending status. ICANN org has worked to gather, organize and analyze the information necessary to inform this community discussion on these pending data collection recommendations in a separate track of work. The community discussion on how ICANN org should formalize and promote data collection, in line with Recommendation 1, is independent of the discussion on whether to implement and how to prioritize any specific recommendation. The Board took action on [26 January 2020](#) to accept a [plan for implementation](#) for Recommendation 1, which includes defining a model (with community input) for ongoing data collection.

Appendix 1 - Background

Launched under the Affirmation of Commitments (AoC), the Competition, Consumer Trust and Consumer Choice Review Team (CCT-RT) was announced in December 2015

<https://www.icann.org/news/announcement-2-2015-12-23-en>, and formed in January 2016, to assess the effects of the New Generic Top-Level Domain (New gTLD) Program in three areas: competition, consumer trust, and consumer choice. The review also assessed the effectiveness of safeguards put in place to mitigate issues arising from the introduction of new gTLDs and the New gTLD Program's application and evaluation process.

The review, now included under ICANN Bylaws section 4.6

<https://www.icann.org/resources/pages/governance/bylaws-en/#article4.6>, examines the extent to which the New gTLD Program has promoted competition, consumer trust and consumer choice.

The CCT analyzed both quantitative and qualitative data to produce recommendations for the ICANN Board to consider. Informed by multiple studies, research, and data gathering initiatives, as well as input from the ICANN community and ICANN Board, the CCT-RT released a final report on 8 September 2018 - <https://www.icann.org/en/system/files/files/cct-final-08sep18-en.pdf> on 8 September 2018.

The report contains 35 full consensus recommendations, covering requests for more and better data collection, policy issues to be addressed by the community, and suggested reforms relating to transparency and data collection within ICANN Contractual Compliance.

As required by the ICANN Bylaws, the CCT-RT Final Report and Recommendations were published for public comment (<https://www.icann.org/public-comments/cct-final-recs-2018-10-08-en>) to inform Board action on the report. The summary of comments received on the Final Report (<https://www.icann.org/en/system/files/files/report-comments-cct-final-recs-01feb19-en.pdf>) highlighted divergences of opinion, including key concerns on the final recommendations and lack of community alignment on resource allocation.

Recognizing that the Board has the obligation and responsibility to plan and manage the work of ICANN org in order to preserve the ability for ICANN org to serve its mission and the public interest, the Board established three categories of action, as documented in the Scorecard

<https://www.icann.org/en/system/files/files/resolutions-final-cct-recs-scorecard-01mar19-en.pdf>:

- Six recommendations were accepted (resolution 2019.03.01.03), subject to costing and implementation considerations. ICANN org was directed to *develop and submit to the Board a plan for the implementation of the accepted recommendations. This plan should be completed and provided to the community for consideration no later than six months after this Board action.*
- Seventeen recommendations (resolution 2019.03.01.04) were placed in pending status (in whole or in part), with a commitment to *take further action on these recommendations subsequent to the completion of intermediate steps as identified in the Scorecard.*
- Fourteen recommendations were passed through (in whole or in part) to community groups the CCT-RT identified for consideration. *In passing these recommendations through, the Board is neither accepting, nor rejecting the recommendations*

Appendix 2 - Overview of Recommendations

On [1 March 2019](#), the Board placed 17 recommendations (recommendations 2, 3, 4, 5, 6, 7, 8, 11, 13, 14, 15, 16, 18, 20, 23, 24, and 26) in "pending" status. As detailed in the Scorecard - <https://www.icann.org/en/system/files/files/resolutions-final-cct-recs-scorecard-01mar19-en.pdf> - and as referenced below.

Recommendation	Directed to	CCT-RT Priority ⁵
<p>Recommendation 2 - Collect wholesale pricing for legacy gTLDs. Board Action - Place the recommendation in "Pending" status due to questions raised about the value of the data. The Board directs ICANN org, through engagement of a third party, to conduct an analysis to identify what types of data would be relevant in examining the potential impacts on competition and, whether that data is available, and how it could be collected in order to benefit the work of future CCT Review Teams. This analysis will inform the Board's decision on next steps and whether this recommendation can be adopted to move into costing discussion phase of implementation.</p>	ICANN organization	Low
<p>Recommendation 3 - Collect transactional pricing for the gTLD marketplace. Board action - Place the recommendation in "Pending" status due to questions raised about the value of the data. The Board directs ICANN org, through engagement of a third party, to conduct an analysis to identify what types of data would be relevant in examining the potential impacts on competition and, whether that data is available, and how it could be collected in order to benefit the work of future CCT Review Teams. This analysis will inform the Board's decision on next steps and whether this recommendation can be adopted to move into costing discussion phase of implementation.</p>	ICANN organization	Medium
<p>Recommendation 4 - Collect retail pricing for the domain marketplace. Board action - Place the recommendation in "Pending" status due to questions raised about the value of the data. The Board directs ICANN org, through engagement of a third party, to conduct an analysis to identify what types of data would be relevant in examining the potential impacts on competition and, whether that data is available, and how it could be collected in order to benefit the work of future CCT Review Teams. This analysis will inform the Board's decision on next steps and whether this recommendation can be adopted to move into costing discussion phase of implementation.</p>	ICANN organization	Low
<p>Recommendation 5 - Collect secondary market data. Board action - Place the recommendation in "Pending" status due to questions raised about the value of the data and direct ICANN org, through engagement of a third party, to conduct an analysis to identify what types of data would be relevant in examining the potential impacts on competition and, whether that data is available, and how it could be collected in order to benefit the work</p>	ICANN organization	High

⁵ CCT-RT priority labels include: Prerequisite: Must be implemented prior to the launch of subsequent procedures for new gTLDs; High: Must be implemented within 18 months of the issuance of a final report; Medium priority: Must be implemented within 36 months of the issuance of a final report; Low: Must be implemented prior to the start of the next CCT Review.

<p>of future CCT Review Teams. This analysis will inform the Board's decision on next steps and whether this recommendation can be adopted to move into costing discussion phase of implementation.</p>		
<p>Recommendation 6 - Partner with mechanisms and entities involved with the collection of TLD data. As feasible, collect TLD registration number data per TLD and registrar at a country-by-country level in order to perform analysis based on the same methods used in the Latin American and Caribbean DNS Marketplace (LAC) Study. Board action - Place the recommendation in "Pending" status. ICANN org already has access to and has shared some data that serves this request, though it is unclear the scope of further collection that is feasible or available. The Board directs ICANN org to conduct a gap analysis and feasibility assessment to inform potential action on this recommendation. Additionally, the outcome of the implementation of Recommendation 1 will inform the Board's decision on next steps and whether this recommendation can be adopted to move into costing discussion phase of implementation.</p>	ICANN organization	Low
<p>Recommendation 7 - Collect domain usage data to better understand the implications of parked domains. Board action - Place the recommendation in "Pending" status. The outcome of the implementation of Recommendation 1 will inform the Board's decision on next steps and whether this recommendation can be adopted to move into costing discussion phase of implementation.</p>	ICANN organization	High
<p>Recommendation 8 - Conduct periodic surveys of registrants that gathers both objective and subjective information with a goal of creating more concrete and actionable information. Board action - Place the recommendation in "Pending" status. The Board notes that ICANN org has already conducted periodic surveys, so work toward this recommendation has already taken place. The Board directs ICANN org to perform a gap analysis over the what has already been completed towards this recommendation and measured against broader community considerations of information that might be needed to support future community efforts. Once the scope of such surveys is better defined, the Board directs ICANN org to advise on what the cost of implementation would be. Additionally, outcome of the implementation of Recommendation 1 will inform the Board's decision on next steps and whether this recommendation can be adopted to move into costing discussion phase of implementation.</p>	ICANN organization	Low
<p>Recommendation 11 - Conduct periodic end-user consumer surveys. Future review teams should work with survey experts to conceive more behavioral measures of consumer trust that gather both objective and subjective data with a goal toward generating more concrete and actionable information. Board action - Place the recommendation in "Pending" status. As ICANN org has already conducted such surveys, the Board directs ICANN org to perform a full impact assessment on whether there will be any duplication of work or gap analysis. Once the scope of such surveys is better defined, Board directs ICANN org to advise on what the cost of implementation would be. Additionally, the outcome of the implementation of Recommendation 1 will inform the Board's decision on next steps and whether this recommendation can be adopted to move into costing discussion phase of implementation.</p>	ICANN organization and future CCT Review Teams	Prerequisite

<p>Recommendation 13 - ICANN should collect data in conjunction with its related data collection activities on the impact of restrictions on who can buy domains within certain new gTLDs (registration restrictions) to help regularly determine and report: 1. Whether consumers and registrants are aware that certain new gTLDs have registration restrictions; 2. Compare consumer trust levels between new gTLDs with varying degrees of registration restrictions; 3. Determine whether the lower abuse rates associated with gTLDs that impose stricter registration policies identified in the Statistical Analysis of DNS Abuse in gTLDs Study continue to be present within new gTLDs that impose registration restrictions as compared with new gTLDs that do not 4. Assess the costs and benefits of registration restrictions to contracted parties and the public (to include impacts on competition and consumer choice) and; 5. Determine whether and how such registration restrictions are enforced or challenged.</p> <p>Board action - Place the recommendation in “Pending” status. The Board directs ICANN org to consider if there are already effort that could be leveraged to meet this recommendation, such as the continuation of the previous DNS abuse study. In considering potential implementation, the Board also directs ICANN org to consider availability of data as part of its planning efforts, and the types of information that are available through contract as opposed to voluntary compliance through contracted parties. Additionally, the outcome of the implementation of Recommendation 1 will inform the Board’s decision on next steps and whether this recommendation can be adopted to move into costing discussion phase of implementation.</p>	<p>ICANN organization</p>	<p>Low</p>
<p>Recommendation 14 - Consider directing ICANN organization, in its discussions with registries, to negotiate amendments to existing Registry Agreements, or in consideration of new Registry Agreements associated with subsequent rounds of new gTLDs, to include provisions in the agreements to provide incentives, including financial incentives for registries, especially open registries, to adopt proactive anti-abuse measures.</p> <p>Board action - Place this recommendation in “Pending” status. The Board directs ICANN org to facilitate community efforts to develop a definition of “abuse” to inform further action on this recommendation. To negotiate “anti-abuse measures”, a common understanding of what “abuse” means must first be reached.</p>	<p>The ICANN Board, the Registry Stakeholders Group, the Registrar Stakeholders Group, the Generic Names Supporting Organization, and the Subsequent Procedures PDP WG.</p>	<p>High</p>
<p>Recommendation 15 - ICANN Org should, in its discussions with registrars and registries, negotiate amendments to the Registrar Accreditation Agreement and Registry Agreements to include provisions aimed at preventing systemic use of specific registrars or registries for DNS Security Abuse. With a view to implementing this recommendation as early as possible, and provided this can be done, then this could be brought into effect by a contractual amendment through the bilateral review of the Agreements. In particular, ICANN should establish thresholds of abuse at which compliance inquiries are automatically triggered, with a higher threshold at which registrars and registries are presumed to be in default of their agreements. If the community determines that ICANN org itself is ill-suited or unable to enforce such provisions, a DNS Abuse Dispute Resolution Policy (DADRP) should be considered as an additional means to enforce policies and deter against DNS Security Abuse. Furthermore, defining and identifying DNS Security Abuse is inherently complex and would benefit from analysis by the community, and thus we specifically recommend</p>	<p>The ICANN Board, the Registry Stakeholders Group, the Registrar Stakeholders Group, the Generic Names Supporting Organization and the Subsequent Procedures PDP WG</p>	<p>Prerequisite (provisions to address systemic DNS Security Abuse should be included in the baseline contract for any future new gTLDs)</p>

<p>that the ICANN Board prioritize and support community work in this area to enhance safeguards and trust due to the negative impact of DNS Security Abuse on consumers and other users of the Internet.</p> <p>Board action - Place this recommendation in “Pending” status. The Board directs ICANN org to facilitate community efforts to develop a definition of “abuse” to inform further action on this recommendation. To negotiate amendments to address DNS Security Abuse measures, a common understanding of what “abuse” means must first be reached.</p>		
<p>Recommendation 16 - Further study the relationship between specific registry operators, registrars, and DNS Security Abuse by commissioning ongoing data collection, including but not limited to, ICANN Domain Abuse Activity Reporting (DAAR) initiatives. For transparency purposes, this information should be regularly published, ideally quarterly and no less than annually, in order to be able to identify registries and registrars that need to come under greater scrutiny, investigation, and potential enforcement action by ICANN organization. Upon identifying abuse phenomena, ICANN should put in place an action plan to respond to such studies, remedy problems identified, and define future ongoing data collection.</p> <p>Board action - [This action pertains to a portion of the recommendation language - refer to bold text.] Place these two elements of the recommendation in “Pending status” and directs ICANN org to conduct a gap analysis of the study suggested by the CCT-RT compared to existing collection effort to inform usefulness of the study, and to inform whether establishing future ongoing data collection would be meaningful. The analysis should take into account the work that the org is already performing, such as Contractual Compliance audits. Additionally, the outcome of the implementation of Recommendation 1 will inform the Board’s decision on next steps and whether this recommendation can be adopted to move into costing discussion phase of implementation.</p>	<p>The ICANN Board, the Registry Stakeholders Group, the Registrar Stakeholders Group, the Generic Names Supporting Organization, and the Subsequent Procedures PDP WG, SSR2 Review Team.</p>	<p>High</p>
<p>Recommendation 18 - In order for the upcoming WHOIS Review Team to determine whether additional steps are needed to improve WHOIS accuracy, and whether to proceed with the identity phase of the Accuracy Reporting System (ARS) project, ICANN should gather data to assess whether a significant percentage of WHOIS-related complaints applicable to new gTLDs relate to the accuracy of the identity of the registrant. This should include analysis of WHOIS accuracy complaints received by ICANN Contractual Compliance to identify the subject matter of the complaints (e.g., complaints about syntax, operability, or identity). The volume of these complaints between legacy gTLDs and new gTLDs should also be compared. ICANN should also identify other potential data sources of WHOIS complaints beyond those that are contractually required (including but not limited to complaints received directly by registrars, registries, ISPs, etc.) and attempt to obtain anonymized data from these sources. Future CCT Reviews may then also use these data.</p> <p>Board action - Place the recommendation in “Pending” status until such time that the Board receives the RDS-WHOIS2 Final Report and has an opportunity to consider, with ICANN org, the interdependency with this recommendation. Upon release of the RDS-WHOIS2 Final Report, the Board directs ICANN org to perform a gap analysis of the types of information available to the</p>	<p>ICANN organization to gather required data, and to provide data to relevant review teams to consider the results and, if warranted, to assess feasibility and desirability of moving to identity validation phase of WHOIS ARS project.</p>	<p>Medium</p>

<p>RDS-WHOIS2 and the information the CCT-RT recommended to be available to that team, and to provide the Board with inputs on whether additional work is required to address this recommendation. This will inform Board's decision on next steps and whether this recommendation can be adopted to move into costing discussion phase of implementation. Note that the CCT-RT started its work long before the RDS-WHOIS2 Review began, and while the CCT-RT work was pending, the RDSWHOIS2 Review Team completed its work and plans to publish its Final Report shortly.</p>		
<p>Recommendation 20 - Assess whether mechanisms to report and handle complaints have led to more focused efforts to combat abuse by determining: (1) the volume of reports of illegal conduct in connection with the use of the TLD that registries receive from governmental and quasi-governmental agencies; (2) the volume of inquires that registries receive from the public related to malicious conduct in the TLD; (3) whether more efforts are needed to publicize contact points to report complaints that involve abuse or illegal behavior within a TLD; and (4) what actions registries have taken to respond to complaints of illegal or malicious conduct in connection with the use of the TLD. Such efforts could include surveys, focus groups, or community discussions. If these methods proved ineffective, consideration could be given to amending future standard Registry Agreements to require registries to more prominently disclose their abuse points of contact and provide more granular information to ICANN. Once this information is gathered, future review teams should consider recommendations for appropriate follow up measures.</p> <p>Board action - [This action pertains to a portion of the recommendation language - refer to bold text.] Place this recommendation in "Pending" status. The Board notes that this recommendation contains elements that are outside of ICANN org's role (i.e. amendments to contractual agreements), while other elements of this recommendation are costly and will require community input for prioritization and cost/benefit analysis (i.e. data collection). Furthermore, the Board agrees that anti-abuse measures are very important and notes that ICANN org has already implemented initiatives to that end; namely, DAAR, Identifier Technology Health Indicators, and Spec 11(3)(B). The Board directs ICANN org to perform an analysis of the work/initiatives already underway to determine any gaps in work currently in progress and what work recommendation entails. The Board will then review the results of the analysis and determine the best action on this recommendation, insofar as it falls within the ICANN Board or org's remit. Additionally, the outcome of the implementation of Recommendation 1 will inform the Board's decision on next steps and whether this recommendation can be adopted to move into costing discussion phase of implementation.</p>	<p>ICANN organization and future CCT Review Teams</p>	<p>Medium</p>
<p>Recommendation 23 - ICANN should gather data on new gTLDs operating in highly-regulated sectors to include the following elements:</p> <ul style="list-style-type: none"> - A survey to determine: 1) the steps registry operators are taking to establish working relationships with relevant government or industry bodies; and 2) the volume of complaints received by registrants from government and regulatory bodies and their standard practices to respond to those complaints. 	<p>ICANN organization, New gTLD Subsequent Procedures PDP Working Group</p>	<p>High</p>

<ul style="list-style-type: none"> - A review of a sample of domain websites within the highly-regulated sector category to assess whether contact information to file complaints is sufficiently easy to find. - An inquiry to ICANN Contractual Compliance and registrars/resellers of highly regulated domains seeking sufficiently detailed information to determine the volume and the subject matter of complaints regarding domains in highly regulated industries. - An inquiry to registry operators to obtain data to compare rates of abuse between those highly-regulated gTLDs that have voluntarily agreed to verify and validate credentials to those highly-regulated gTLDs that have not. - An audit to assess whether restrictions regarding possessing necessary credentials are being enforced by auditing registrars and resellers offering the highly-regulated TLDs (i.e., can an individual or entity without the proper credentials buy a highly-regulated domain?). <p>To the extent that current ICANN data collection initiatives and compliance audits could contribute to these efforts, we recommend that ICANN assess the most efficient way to proceed to avoid duplication of effort and leverage current work.</p> <p>Board action - Place the recommendation in “Pending” status and request ICANN org to provide a report on volume and nature of complaints received regarding gTLDs operating in highly-regulated sectors. This report will inform Board’s decision on next steps and whether the data warrants conducting audits or requesting further information from contracted parties. Additionally, the outcome of the implementation of Recommendation 1 will inform the Board’s decision on next steps and whether this recommendation can be adopted to move into costing discussion phase of implementation.</p>		
<p>Recommendation 24 - a. Determine whether ICANN Contractual Compliance should report on a quarterly basis whether it has received complaints for a registry operator’s failure to comply with either the safeguard related to gTLDs with inherent governmental functions or the safeguard related to cyberbullying.</p> <p>b. Survey registries to determine: 1) whether they receive complaints related to cyberbullying and misrepresenting a governmental affiliation; and 2) how they enforce these safeguards.</p> <p>Board action - Place the recommendation in “Pending” status and request ICANN org to identify where there is a gap between work currently in progress and what the recommendation entails. Once the gap analysis is completed, ICANN org will share the findings with the community to ensure alignment on next steps and any changes that need to be made. This analysis will inform the Board’s decision on next steps and whether this recommendation can be adopted to move into costing discussion phase of implementation. Additionally, the outcome of the implementation of Recommendation 1 will inform the Board’s decision on next steps and whether this recommendation can be adopted to move into costing discussion phase of implementation.</p>	ICANN organization	Low
<p>Recommendation 26 - A study to ascertain the impact of the New gTLD Program on the costs required to protect trademarks in the expanded DNS space should be repeated at regular intervals to see the evolution over time of those costs. The CCT Review Team recommends that the next study be completed within 18 months after issuance of the CCT Final Report, and that subsequent studies be repeated every 18 to 24 months. The CCT Review</p>	ICANN organization	High

Team acknowledges that the Nielsen survey of INTA members in 2017 intended to provide such guidance yielded a lower response rate than anticipated. We recommend a more user friendly and perhaps shorter survey to help ensure a higher and more statistically significant response rate.

Board action - Place the recommendation in "Pending" status and direct ICANN org to do an in-depth analysis of the value of data, the usefulness of the study, the cost associated with conducting the studies and the interdependencies with other relevant studies. Upon the completion of this analysis, and given all other studies requested in the CCT Final Report, the community should determine the priority levels for all relevant studies. The Board notes that the cost and prioritization could impact timing and ability to meet the requested 18-month implementation. Additionally, the outcome of the implementation of Recommendation 1 will inform the Board's decision on next steps and whether this recommendation can be adopted to move into costing discussion phase of implementation.

