COMPETITION, CONSUMER TRUST, AND CONSUMER CHOICE REVIEW

Final Report

Competition, Consumer Trust, and Consumer Choice Review Team
8 September 2018

ICANN

2 CCT Review Team Recommendations

The review team's recommendations are summarized in the table below. The full recommendations, with related findings and rationale, may be found in the cited chapters.

Prerequisite or priority level: Per the ICANN Bylaws, the CCT Review Team indicated whether each recommendation must be implemented prior to the launch of subsequent procedures for new gTLDs.[25] The review team agreed that those recommendations that were not categorized as prerequisites would be given a time-bound priority level:

- ⊙ **High priority**: Must be implemented within 18 months of the issuance of a final report

- ⊙ **Medium priority**: Must be implemented with 36 months of the issuance of a final report

- ⊙ **Low priority**: Must be implemented prior to the start of the next CCT Review

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[25] See ICANN, "Bylaws for Internet Corporation for Assigned Names and Numbers," amended 18 June 2018, https://www.icann.org/resources/pages/governance/bylaws-en/, Section 4.6.d.iv: "For each of its recommendations, the CCT Review Team should indicate whether the recommendation, if accepted by the Board, must be implemented before opening subsequent rounds of new generic top-level domain applications periods."

#	Recommendation	To	Prerequisite or priority level	Con sen sus
Chapter 5. Data-Driven Analysis: Recommendations for Additional Data Collection and Analysis				
1	Formalize and promote ongoing data collection.	ICANN organization	High	Yes
Chapter 6. Competition				
2	Collect wholesale pricing for legacy gTLDs.	ICANN organization	Low	Yes
3	Collect transactional pricing for the gTLD marketplace.	ICANN organization	Medium	Yes
4	Collect retail pricing for the domain marketplace.	ICANN organization	Low	Yes
5	Collect secondary market data.	ICANN organization	High	Yes
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.[26]	ICANN organization	Low	Yes
7	Collect domain usage data to better understand the implications of parked domains.	ICANN organization	High	Yes
Chapter 7. Consumer Choice				
8	Conduct periodic surveys of registrants that gathers both objective and subjective information with a goal of creating more concrete and actionable information.	ICANN organization	Low	Yes
9	The ICANN community should consider whether the costs related to defensive registration for the small number of brands registering a large number of domains can be reduced.	New gTLD Subsequent Procedures PDP Working Group and/or Rights Protection Mechanisms (RPM) PDP Working Group	Prerequisite	Yes
10	The GNSO should initiate a new Policy Development Process (PDP) to create a consistent privacy baseline across all registries, including to explicitly cover cases of privacy infringements such as sharing or selling personal data without a lawful basis, such as the consent of that person. The GNSO PDP should consider limiting the collection and processing of personal data within rules which are mandatory for all gTLD registries. It should also consider not allowing registries to share personal data with third parties without a lawful basis, such as the consent of that person or under circumstances defined by applicable law (e.g. upon requests of government agencies, IP lawyers, etc.). Also, it is necessary to be aware of emerging, applicable regulations related to the processing of the personal data. For	Generic Names Supporting Organization	Medium	Yes

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[26] Oxford Information Labs, EURid, InterConnect Communications (22 September 2016), Latin American and Caribbean DNS Marketplace Study (hereafter LAC Study), accessed 6 August 2018, https://www.icann.org/en/system/files/files/lac-dns-marketplace-study-22sep16-en.pdf.

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	clarification, this recommendation does not relate to issues involving WHOIS or registration directory services data.			
Chapter 8. Consumer Trust				
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.	ICANN organization and future CCT Review Teams	Prerequisite	Yes
12	Create incentives and/or eliminate current disincentives that encourage gTLD registries to meet user expectations regarding: (1) the relationship of content of a gTLD to its name; (2) restrictions as to who can register a domain name in certain gTLDs based upon implied messages of trust conveyed by the name of its gTLDs (particularly in sensitive or regulated industries) and (3) the safety and security of users' personal and sensitive information (including health and financial information). These incentives could relate to applicants who choose to make public interest commitments in their applications that relate to these expectations. Ensure that applicants for any subsequent rounds are aware of these public expectations by inserting information about the results of the ICANN surveys in the Applicant Guide Books.	New gTLD Subsequent Procedures PDP Working Group	Prerequisite (incentives could be implemented as part of application process)	Yes
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;[27]	ICANN organization	Low	Yes

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[27] SIDN Labs and the Delft University of Technology, "DNS Abuse in gTLDs".

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	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.			
Chapter 9. Safeguards				
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. [28]	The ICANN Board, the Registry Stakeholders Group, the Registrar Stakeholders Group, the Generic Names Supporting Organization, and the Subsequent Procedures PDP WG.	High	Yes
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	The ICANN Board, the Registry Stakeholders Group, the Registrar Stakeholders Group, the Generic Names Supporting Organization and the Subsequent Procedures PDP WG	Prerequisite (provisions to address systemic DNS Security Abuse should be included in the baseline contract for any future new gTLDs)	Yes

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[28] The review team looked for examples of practices that could assist in proactively minimizing abuse. One such example has been proposed by EURid, the operator of the .EU registry, which will soon test a delayed delegation system. See EURid, "EURid Set to Launch First of its Kind Domain Name Abuse Prevention Tool," 2017, accessed 8 August 2018, https://eurid.eu/en/news/eurid-set-to-launch-first-of-its-kind-domain-name-abuse-prevention-tool/ and Vissers T. et al. (2017), "Exploring the Ecosystem of Malicious Domain Registrations in the .eu TLD" In: Dacier M., Bailey M., Polychronakis M., Antonakakis M. (eds) Research in Attacks, Intrusions, and Defenses. RAID 2017. Lecture Notes in Computer Science, vol 10453. Springer, Cham, accessed 8 August 2018, https://link.springer.com/chapter/10.1007/978-3-319-66332-6_21. https://eurid.eu/media/filer_public/9e/d1/9ed12346-562d-423d-a3a4-bcf89a59f9b4/eutldecosystem.pdf. This process will not prevent registrations, but instead delay activation of a registration if a domain name is identified as being potentially abusive by machine learning algorithms. Future review teams could study this effort to consider its effectiveness and whether it could serve as a potential innovative model to help foster trust and a secure online environment. In addition, the .xyz registry may provide another example of proactive measures to combat abuse. The .xyz registry purports to have a zero-tolerance policy toward abuse-related activities on .xyz or any of their other domain extensions using a sophisticated abuse monitoring tool enabling proactive monitoring and detection in near real-time, suspending domains engaging in any of the abusive activities set out. Future review teams could explore the effectiveness of this approach by examining abuse rates over time and comparing the levels of abuse both before and after this policy.

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	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.			
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.[29] 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.	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.	High	Yes
17	ICANN should collect data about and publicize the chain of parties responsible for gTLD domain name registrations.	The ICANN Board, the GNSO Expedited PDP, the Registry Stakeholders Group, the Registrar Stakeholders Group, the Generic Names Supporting Organization, the Subsequent Procedures PDP WG, SSAC	High	Yes
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	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	Medium	Yes

[29] ICANN, "Domain Abuse Activity Reporting (DAAR)," accessed 6 August 2018, https://www.icann.org/octo-ssr/daar

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	complaints applicable to new gTLDs relate to the accuracy of the identity of the registrant.[30] 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.	desirability of moving to identity validation phase of WHOIS ARS project.		
19	The next CCT should review the "Framework for Registry Operator to Respond to Security Threats" and assess whether the framework is a sufficiently clear and effective mechanism to mitigate abuse by providing for systemic and specified actions in response to security threats.[31]	Future CCT Review Teams	Medium	Yes
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	ICANN organization and future CCT Review Teams	Medium	Yes

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[30] ICANN, "WHOIS Accuracy Reporting System (ARS) Project Information," accessed 6 August 2018, https://whois.icann.org/en/whoisars
[31] ICANN, "Framework for Registry Operator to Respond to Security Threats," accessed 6 August 2018, https://www.icann.org/resources/pages/framework-registry-operator-respond-security-threats-2017-10-20-en

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	to ICANN. Once this information is gathered, future review teams should consider recommendations for appropriate follow up measures.			
21[32]	Include more detailed information on the subject matter of complaints in ICANN publicly available compliance reports. Specifically, more precise data on the subject matter of complaints, particularly: (1) the class/type of abuse; (2) the gTLD that is target of the abuse; (3) the safeguard that is at risk; (4) an indication of whether complaints relate to the protection of sensitive health or financial information; (5) what type of contractual breach is being complained of; and (6) resolution status of the complaints, including action details. These details would assist future review teams in their assessment of these safeguards.[33]	ICANN organization	High	Yes
22	Initiate engagement with relevant stakeholders to determine what best practices are being implemented to offer reasonable and appropriate security measures commensurate with the offering of services that involve the gathering of sensitive health and financial information. Such a discussion could include identifying what falls within the categories of "sensitive health and financial information" and what metrics could be used to measure compliance with this safeguard.	ICANN organization	High	Yes

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[32] Since the publication of the CCT Review Team's draft recommendations for public comment, ICANN Contractual Compliance has considered the review team recommendations in implementing certain changes. In October 2017, ICANN Contractual Compliance, began collecting and reporting on the granularity of registrar-related DNS Abuse complaints by identifying the type of abuse including spam, pharming, phishing, malware, botnets, counterfeiting, pharmaceutical, fraudulent and deceptive practices, trademark or copyright infringement, and missing or invalid registrar abuse contact information. This information is reported on ICANN.org in the monthly dashboard at this link https://features.icann.org/compliance/dashboard/report-list. The quarterly and annual metrics reports provide information about enforcement reasons, reporter categories, closure reasons and details of the complaints inclusive of DNS Abuse by legacy and new gTLDs as they evolve through the compliance process, from ticket receipt to closure. They also reporting on any complaint type if it concerns a GAC Cat 1 gTLD. They also report on granularity of type of Transfer complaints (choices are Transfer, Unauthorized Transfer, COR, Unauthorized COR and TEAC).
In light of the ICANN community concerns regarding DNS infrastructure abuse, Compliance updated the audit plans with expanded questions and testing to address DNS abuse and also includes concerns about DNS infrastructure abuse when determining which contracted parties to audit. This information will be reported via the Audit Report and published under Reports & Blogs at this link https://www.icann.org/resources/compliance-reporting-performance.
[33] Since the publication of the CCT Review Team's draft recommendations for public comment, ICANN Contractual Compliance has considered the review team recommendations in implementing certain changes described in the blogs of October 2017, "Enhancing Transparency in Contractual Compliance Reporting," https://www.icann.org/news/blog/enhancing-transparency-in-contractual-compliance-reporting, and March 2018, "Enhancing Transparency in Contractual Compliance Reporting, https://www.icann.org/news/blog/enhancing-transparency-in-contractual-compliance-reporting-en.

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23	ICANN should gather data on new gTLDs operating in highly-regulated sectors to include the following elements:[34] ⊙ 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.	ICANN organization, New gTLD Subsequent Procedures PDP Working Group	High	Yes
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	ICANN organization	Low	Yes

#	Recommendation	To	Prerequisite or priority level	Con sen sus
	safeguard related to gTLDs with inherent governmental functions or the safeguard related to cyberbullying.[35] 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.			
25	To the extent voluntary commitments are permitted in future gTLD application processes, all such commitments made by a gTLD applicant must state their intended goal and be submitted during the application process so that there is sufficient opportunity for community review and time to meet the deadlines for community and Limited Public Interest objections.[36] Furthermore, such requirements should apply to the extent that voluntary commitments may be made after delegation. Such voluntary commitments, including existing voluntary PICs, should be made accessible in an organized, searchable online database to enhance data-driven policy development, community transparency, ICANN compliance, and the awareness of variables relevant to DNS abuse trends.	ICANN organization, New gTLD Subsequent Procedures PDP Working Group	Prerequisite	Yes
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.[37] We recommend a more user friendly and perhaps shorter survey to help ensure a higher and more statistically significant response rate.	ICANN organization	High	Yes
27	Since the review team's initial draft recommendation, the PDP "Review of All Rights Protection Mechanisms in All gTLDs (RPM	Generic Names Supporting Organization	Prerequisite	Yes

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[35] ICANN Governmental Advisory Committee (GAC), *Beijing Communiqué*, accessed 6 August 2018, https://www.icann.org/en/system/files/correspondence/gac-to-board-18apr13-en.pdf
[36] ICANN, "Objection and Dispute Resolution," accessed 6 August 2018, https://newgtlds.icann.org/en/program-status/odr
[37] Nielsen, *INTA New gTLD Cost Impact Study* (April 2017) and INTA, *New gTLD Impact Study,* (August 2017).

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	WG)" has started reviewing the Uniform Rapid Suspension system in detail and this is currently ongoing.[38] Given this ongoing review, the CCT Review Team recommends that the RPM WG continues its review of the URS and also looks into the interoperability of the URS with the Uniform Domain Name Dispute Resolution Policy (UDRP).[39] Given the current timeline, it would appear that the appropriate time to do so will be when the UDRP review is carried out by the PDP WG and at this time consideration be given to how it should interoperate with the UDRP. The review team has encountered a lack of data for complete analysis in many respects. The RPM PDP WG appears to also be encountering this issue and this may well prevent it drawing firm conclusions. If modifications are not easily identified, then the review team recommends continued monitoring until more data is collected and made available for a review at a later date.			
28	A cost-benefit analysis and review of the Trademark Clearinghouse (TMCH) and its scope should be carried out to provide quantifiable information on the costs and benefits associated with the present state of the TMCH services and thus to allow for an effective policy review.[40] Since our initial draft recommendation, the RPM PDP has started reviewing the TMCH in detail and ICANN has appointed Analysis Group to develop and conduct the survey(s) to assess the use and effectiveness of the Sunrise and Trademark Claims RPMs. Provided that the RPM PDP has sufficient data from this survey or other surveys and is able to draw firm conclusions, the CCT Review Team does not consider that an additional review is necessary. However, the CCT Review Team reiterates its recommendation for a cost-benefit analysis to be carried out if such analysis can enable objective conclusions to be drawn. Such cost-benefit analysis should include but not	Generic Names Supporting Organization	Prerequisite	Yes

[38] ICANN GNSO, "PDP Review of All Rights Protection Mechanisms in All gTLDs," accessed 6 August 2018, https://gnso.icann.org/en/group-activities/active/rpm and ICANN" and ICANN "Uniform Rapid Suspension (URS)," accessed 6 August 2018, https://www.icann.org/resources/pages/urs-2014-01-09-en
[39] ICANN, "Uniform Domain Name Dispute Resolution Policy," accessed 6 August 2018, https://www.icann.org/resources/pages/help/dndr/udrp-en
[40] ICANN, "Trademark Clearinghouse (TMCH)," accessed 6 August 2018, https://newgtlds.icann.org/en/about/trademark-clearinghouse

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	necessarily be limited to looking at cost to brand owners, cost to registries, and cost to registrars of operating with the TMCH now and going forward and look at the interplay with premium pricing.			
Chapter 10. Application and Evaluation Process of the New gTLD Program				
29	Set objectives/metrics for applications from the Global South.	New gTLD Subsequent Procedures PDP Working Group/Generic Supporting Names Organization	Prerequisite —objectives must be set	Yes
30	Expand and improve outreach into the Global South.	ICANN organization	Prerequisite	Yes
31	The ICANN organization to coordinate the *pro bono* assistance program.	ICANN organization	Prerequisite	Yes
32	Revisit the Applicant Support Program.[41]	New gTLD Subsequent Procedures Working Group	Prerequisite	Yes
33	As required by the October 2016 Bylaws, Governmental Advisory Committee (GAC) consensus advice to the Board regarding gTLDs should also be clearly enunciated, actionable, and accompanied by a rationale, permitting the Board to determine how to apply that advice.[42] ICANN should provide a template to the GAC for advice related to specific TLDs, in order to provide a structure that includes all of these elements. In addition to providing a template, the Applicant Guidebook (AGB) should clarify the process and timelines by which GAC advice is expected for individual TLDs.	New gTLD Subsequent Procedures PDP Working Group, GAC, ICANN organization	Prerequisite	Yes
34	A thorough review of the procedures and objectives for community-based applications should be carried out and improvements made to address and correct the concerns raised before a new gTLD application process is launched. Revisions or adjustments should be clearly reflected in an updated version of the 2012 AGB.	New gTLD Subsequent Procedures PDP Working Group	Prerequisite	Yes
35	The New gTLD Subsequent Procedures PDP should consider adopting new policies to avoid the potential for inconsistent results in string confusion objections.[43] In particular, the PDP should consider the following possibilities:	New gTLD Subsequent Procedures PDP Working Group	Prerequisite	Yes

[41] ICANN, "Applicant Support Program (ASR)," accessed 6 August 2018, https://newgtlds.icann.org/en/applicants/candidate-support
[42] ICANN, "GAC Advice," accessed 6 August 2018, https://newgtlds.icann.org/en/applicants/gac-advice. See also ICANN, "Bylaws," Section 2.1, Article 3, Section 3.6: https://www.icann.org/resources/pages/governance/bylaws-en/#article2
[43] ICANN GNSO, "PDP New gTLD Subsequent Procedures," accessed 6 August 2018, https://gnso.icann.org/en/group-activities/active/new-gtld-subsequent-procedures

#	Recommendation	To	Prerequisite or priority level	Con sen sus
	1. Determining through the initial string similarity review process that singular and plural versions of the same gTLD string should not be delegated.[44] 2. Avoiding disparities in similar disputes by ensuring that all similar cases of plural versus singular strings are examined by the same expert panelist. 3. Introducing a post-dispute resolution panel review mechanism.			

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[44] New gTLD Subsequent Procedures Wiki, "String Similarity," accessed 6 August 2018, https://community.icann.org/display/NGSPP/4.4.2+String+Similarity