New gTLD Program		
Overarching Issues		
1.2.1	Continuing Subsequent Procedures	Overarching Issues
1.2.2	Predictability	Overarching Issues
1.2.1	*Community Engagement*	Overarching Issues
1.2.2	*Clarity of Application Process*	Work Track 1
1.2.3	Applications Assessed in Rounds	Overarching Issues
1.2.4	Different TLD Types	Overarching Issues
1.2.5	Applications Submission Limits	Overarching Issues
1.2.6	Accreditation Programs (e.g., RSP Pre-Approval)	Work Track 1
Foundational Issues		
1.3.1	Competition, Consumer Choice and Consumer Trust	Work Track 1
1.3.2	Global Public Interest	Work Track 2
1.3.3	Applicant Freedom of Expression	Work Track 3
1.3.4	Universal Acceptance	Work Track 4
Pre-Launch Activities		

1.4.1	Applicant Guidebook	Work Track 1
1.4.2	Communications	Work Track 1
1.4.3	Systems	Work Track 1
Application Submission		
1.5.1	Application Fees	Work Track 1
1.5.2	Variable Fees	Work Track 1
1.5.3	Application Submission Period	Work Track 1
1.5.4	Applicant Support	Work Track 1
1.5.5	Terms & Conditions	Work Track 2
Application Processing		
1.6.1	Application Queuing	Work Track 1
Application Evaluation/Criteria		
1.7.1	Reserved Names	Work Track 2
1.7.1.1	*IGO/INGO Protections*	*Work Track 2*
1.7.1.2	*Geographic Names*	*Work Track 5*
1.7.2	Registrant Protections	Work Track 2
1.7.3	Closed Generics	Work Track 2
1.7.4	String Similarity	Work Track 3
1.7.5	IDNs	Work Track 4

1.7.6	Security and Stability	Work Track 4
1.7.7	Applicant Reviews: Technical/Operational, Financial and Registry Services	Work Track 4
1.7.8	Name Collisions	Work Track 4
Dispute Proceedings		
1.8.1	Objections	Work Track 3
1.8.2	Accountability Mechanisms	Work Track 3
String Contention Resolution		
1.9.1	Community Applications	Work Track 3
Contracting		
1.10.1	Base Registry Agreement	Work Track 2
1.10.1.2	*IGO/INGO Protections*	Work Track 2
1.10.2	Registrar Non-Discrimination / Registry/Registrar Standardization	Work Track 2
Pre-Delegation		
1.11.1	Security and Stability	Work Track 4
Post-Delegation		
1.12.1	TLD Rollout	Work Track 2
1.12.2	Second-level Rights Protection Mechanisms	Work Track 2

1.12.3	Contractual Compliance	Work Track 2

1.7 Deliberations and Recommendations: Application Evaluation/Criteria

Application Evaluation/Criteria		
1.7.1	Reserved Names	
1.7.1.2		*IGO/INGO Protections*
1.7.1.3		*Geographic Names*
1.7.2	Registrant Protections	
1.7.3	Closed Generics	
1.7.4	String Similarity	
1.7.5	IDNs	
1.7.6	Security and Stability	
1.7.7	Applicant Reviews: Technical/Operational and Financial	
1.7.8	Name Collisions	

1.7.1 Reserved Names[1]

[1] This Initial Report contains recommendations and deliberations regarding all second-level domain name reservations (including geographic names at the second level), and for all top-level strings except those

a. What is the relevant policy and/or implementation guidance (if any)?

Recommendation 5: "Strings must not be a Reserved Word."
Recommendation 2: "Strings must not be confusingly similar to an existing top-level domain."

b. How was it implemented in the 2012 round of the New gTLD Program?

There are two types of "Reserved Names" in the New gTLD Program. Strings may either be "reserved" at the top level and/or strings can be "reserved" at the second level. The Applicant Guidebook primarily dealt with reservations at the top level, while the Base Registry Agreement (included as Module 5 of the Applicant Guidebook) contained an appendix (Specification 5[2]). There was a list of top-level reserved names in the following sections of the Applicant Guidebook: (i) 2.2.1.2.1 of the AGB, the (ii) technical string requirements in section 2.2.1.3.2 on string composition for ASCII and IDN strings, and (iii) Geographic Names requirements in section 2.2.1.4.2 of the AGB.

With respect to the Schedule of Reserved Names (at the second level), Specification 5 has been amended several times over the last five years. ICANN subsequently amended Specification 5 with an Authorizations to release all Digit/Digit, Letter/Digit, and Digit/Letter Two-Character ASCII Labels as well almost all Letter/Letter ASCII at the second level.

c. What are the preliminary recommendations and/or implementation guidelines?

There is general agreement that only incremental changes are needed to both (1) the reserved names list and related provisions at the top level in the Applicant Guidebook and (2) second level reservations in the Base Registry Agreement. The Work Track has generally agreed on the changes below.

- Reservation at the top level: Keep all existing reservations, but add:
    - The names for Public Technical Identifiers (i.e., PTI, PUBLICTECHNICALIDENTIFIERS, PUBLICTECHNICALIDENTIFIER)
    - Special-Use Domain Names through the procedure described in IETF RFC 6761

- Reservations at the second level: Keep all existing reservations, but update Schedule 5 to include the measures for Letter/Letter Two-Character ASCII Labels to Avoid

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pertaining to Geographic Strings at the top level. Geographic Strings at the top-level are still being discussed by Work Track 5 for which a separate Initial Report shall be published by the Working Group in the months to come.

[2]See https://newgtlds.icann.org/sites/default/files/agreements/agreement-approved-31jul17-en.html, Specification 5.

Confusion with Corresponding Country Codes adopted by the ICANN Board on 8 November 2018[3].

The Working Group is also considering a proposal to remove the reservation of two-character strings at the top level that consist of one ASCII letter and one number (eg., .O2 or .3M), but acknowledges that technical considerations may need to be taken into account on whether to lift the reservation requirements for those strings.

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d. What are the options under consideration, along with the associated benefits / drawbacks?

None

e. What specific questions are the PDP WG seeking feedback on?

- The Base Registry Agreement allows Registry Operators to voluntarily reserve (and activate) up to 100 strings at the second level which the Registry deems necessary for the operation or the promotion of the TLD Should this amount of names be increased or decreased? Please explain. Are there any circumstances in which exceptions to limits should be approved? Please explain.
- If there are no technical obstacles to the use of 2 character strings at the top level consisting of one letter and one digit (or digits more generally), should the reservation of those strings be removed? Why or why not? Do you believe that any additional analysis is needed to ensure that these types of strings will not harm security and stability? Please explain.
- In addition to the reservation of up to 100 domains at the second level, Registry Operators were allowed to reserve an unlimited amount of second level domain names and release those names at their discretion provided that they released those names through ICANN-Accredited Registrars.
    - Should there be any limit to the number of names reserved by a Registry Operator? Why or why Not?
    - Should the answer to the above question be dependent on the type of TLD for which the names are reserved (eg., .brand TLD, Geographic TLD, Community-based TLD and/or Open)? Please explain.
    - During the 2012 Round, there was no requirement to implement a Sunrise process for second-level domain names removed from a Reserved Names list and released by a Registry Operator if the release occurred after the general Sunrise period for the TLD. Should there be a requirement to implement a Sunrise for names released from the Reserved Names List regardless of when those names are released? Please explain.

f. Deliberations

[3] See Board Resolution here: https://features.icann.org/two-character-domain-names-new-gtld-namespace

The Work Track began its consideration of Reserved Names by examining the recommendations of the Reserved Names Working Group[4] (RN-WG) and comparing those recommendations against what was implemented in the Applicant Guidebook. In doing so, the Work Track sought to identify inconsistencies which may need correction via updated policy recommendations, instances where reservation may no longer be needed, as well as cases where additional terms may require reservation. The Work Track went through these resources methodically and carefully.

Top-Level:

The Work Track reviewed the list of Reserved Names defined in section 2.2.1.2.1 of the Applicant Guidebook. The Work Track went through the categories identified in the 2007 Final Report one by one and came to agreement that a number of the reserved name categories needed no changes. However, several areas were subject to discussion and input from Community Comment 2 (CC2).

- ICANN / IANA Names: There was general agreement to maintain the existing names as reserved in the Applicant Guidebook, though some CC2 comments suggested that the list should be reviewed and limited to names where a stability or security risk exists. Others suggested that the names could actually be put to use. In the end, the Work Track generally agreed to leave as is, with the exception to add names related to Public Technical Identifiers. There was also broad support to reserve Special Use Domain Names as determined by the procedure in RFC 6761, noting that additions to this category are anticipated to be rather exceptional in nature.
- Single Letters: There was some support to allow single letter ASCII TLDs, but no agreement was reached. The original recommendation notes that, “If sufficient research at a later date demonstrates that the technical issues and concerns are addressed, the topic of releasing reservation status can be reconsidered.” To that extent however, no additional research was conducted to determine if indeed, those technical issues have been removed. For single character IDNs, the topic was referred to Work Track 4, which was assigned the IDNs topic more broadly.
- Single Letter, Single Digit Combinations: The Work Track noted that the recommendations allowed for this type of TLD, though it was disallowed in the Applicant Guidebook, as were any TLDs that contained digits. There was some support for allowing this type of TLD, in the absence of technical issues, though no agreement was reached.
- Nic/Whois/www: There was some support to include the RDS and/or RDDS acronyms, though no agreement was reached.
- Geographical/Geopolitical: The Work Track deferred discussion of this topic to Work Track 5.
- Controversial Names: The Work Track noted that as recommended, there was no list of reserved names for this category, and it was addressed instead via the Limited Public Interest objection procedure. No agreement was reached here, though a linkage to Work Track 3’s deliberations on objections was identified.

There was some sentiment within the Work track that reservations at the top-level should be limited to strings that may pose a security and stability risk.

[4] See Final Report here: https://gnso.icann.org/en/issues/new-gtlds/final-report-rn-wg-23may07.htm

Second-Level

The Work Track went through the categories identified in the 2007 Final Report one by one and came to agreement that a number of the reserved name categories needed no changes. However, there were a limited number of areas that were subject to discussion and input from CC2.

- Any combination of Two Letters, Digits: The Work Track discussed this area and generally agreed that the recommendation language should be made consistent with the current situation[5]. Specifically, the measures to avoid confusion of letter/letter two-character ASCII labels with corresponding country codes could be captured in future agreements.
- Voluntary Reservation of 100 Names: Regarding language in the Specification 5, Provision 3.2 of the Registry Agreement, which allows the Registry Operator to reserve and use up to 100 names at the second level for the operation and/or promotion of the TLD, there were several CC2 comments; they noted that while the limit of 100 names was reasonable for open TLDs, it posed challenges for geographic TLDs, where in some cases the supporting government required the reservation/allocation of large numbers of names to the government. CC2 comments also noted that the limit might not make sense for closed .Brand TLDs. The Work Track did not reach agreement on these areas and welcomes input from the community.
- Voluntary Reservations of Additional Names: The Work discussed the provisions in Specification 5 of the Registry Agreement, which allow the Registry Operator to reserve an unlimited number of other domain names that may only be released through an ICANN-Accredited Registrar for registration by third parties. There was also a substantial number of CC2 comments on this area, several of which noted that in reserving names, a Registry Operator could release names after the Claims Period, bypassing several rights protection mechanisms, with the exception of Claims Services via the Trademark Clearing House. No agreements were reached on this area.

g. Are there other activities in the community that may serve as a dependency or future input to this topic?

None

1.7.1.1 IGO/INGO Protections

a. What is the relevant policy and/or implementation guidance (if any)?

None

b. How was it implemented in the 2012 round of the New gTLD Program?

[5] See Board Resolution here: https://www.icann.org/en/system/files/files/revised-measures-ltr-ltr-two-char-ascii-labels-country-codes-08nov16-en.pdf

Temporary protections were put into place for International Red Cross and Red Cross Movement, International Olympic Committee (IOC), International Governmental Organizations (IGOs), and International Non-Governmental Organizations (INGOs), affecting both the top-level (in the Applicant Guidebook) and second-level (via Specification 5).

c. What are the preliminary recommendations and/or implementation guidelines?

None at this time.

d. What are the options under consideration, along with the associated benefits / drawbacks?

None

e. What specific questions are the PDP WG seeking feedback on?

None

f. Deliberations

The Work Track refrained from discussing this topic as it is the subject of ongoing policy development in the *PDP for Protection of IGO and INGO Identifiers in All gTLDs* and the *PDP on Curative Rights Protections for IGO/INGOs*. No issues have since been identified that are not already being considered by these two PDPs and as such, the Work Track does not anticipate that any substantive deliberations will be needed for this topic.

The policy recommendations of the PDP for Protection of IGO and INGO Identifiers in All gTLDs that were determined to not be inconsistent with GAC Advice were adopted by the ICANN Board and have been implemented as the Protection of IGO and INGO Identifiers in All gTLDs Policy[6]. The Work Track notes that this policy will impact the drafting of the Applicant Guidebook, as protections stemming from that policy will need to be integrated into the top-level reserved names list.

g. Are there other activities in the community that may serve as a dependency or future input to this topic?

See Deliberations Section above.

1.7.1.2 Geographic Names

[6] See policy here: https://www.icann.org/resources/pages/igo-ingo-protection-policy-2018-01-16-en

The Working Group has established Work Track 5 to consider this singular topic. Work Track 5 will publish its own Initial Report, separate from this one.

1.7.2 Registrant Protections

a. What is the relevant policy and/or implementation guidance (if any)?

Principle D: "A set of technical criteria must be used for assessing a new gTLD registry applicant to minimise the risk of harming the operational stability, security and global interoperability of the Internet."

b. How was it implemented in the 2012 round of the New gTLD Program?

In a United States Congressional Hearing on December 14, 2011 before the Committee on Energy and Commerce of the United States House of Representatives, on behalf of ICANN, Kurt Pritz described the numerous protections afforded to the Internet Community from the launch of the new gTLD Program.[7] These included (i) the maintenance of a Continued Operations Instrument (COI) sufficient to fund basic registry operations for a period of three years in the case of business failure and (ii) the maintenance of continuity and transition plans, including registry failover testing.

The attachment to Module 2 of the Applicant Guidebook[8] specifically incorporated these protections and describes the ways in which application evaluation criteria and scoring seek to protect registrants.

The New gTLD application included questions about protections against registry failure, including registry continuity, registry transition, and failover testing.

ICANN holds contracts with Emergency Back-end Registry Operators (EBERO) that can be temporarily activated to provide five critical registry functions[9] in the event of a TLD registry operator failure.

Specification 6 of the Base Registry Agreement addresses Registry Interoperability and Continuity Specifications. Specification 8 addresses the Continued Operations Instrument (COI),

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[7] See https://www.gpo.gov/fdsys/pkg/CHRG-112hhrg75155/pdf/CHRG-112hhrg75155.pdf,p. 45-46.
[8] https://newgtlds.icann.org/en/applicants/agb/guidebook-full-04jun12-en.pdf
[9] The five critical registry functions are: (i) DNS resolution, (ii)DNSSEC properly signed zone (if DNSSEC is offered by the registry), (iii) Shared Registration System (SRS), usually by means of the Extensible Provisioning Protocol (EPP), (iv) Registration Data Directory Services (RDDS), e.g., WHOIS provided over both port 43 and through a web based service, and (v) Registry Data Escrow. See https://www.icann.org/resources/pages/transition-processes-2013-04-22-en.

which is invoked if it is necessary to pay for an EBERO. COI requirements were specified in Question 50 of the application and supplemented by Continued Operations Instrument Guidelines.[10] Specification 10 provides Registry Performance Specifications, which are utilized in determining if an EBERO event is needed.

In addition to the above Registrant Protections, ICANN also conducted background checks on all applying entities, individuals, and organizations including officers and directors of the applying entity, as well as shareholders with significant interest in the entity. Background screenings included checks on general business diligence, criminal history, and history of cybersquatting. Section 2.1 of the Applicant Guidebook provides information about background screening.

Finally, Registry Operators are required to implement Thick WHOIS, escrow their data with an approved third party data escrow provider, maintain a single point of contact to handle abuse complaints, and participate in ICANN's centralized zone file data access service.

c. What are the preliminary recommendations and/or implementation guidelines?

- Maintain the existing EBERO mechanism including triggers for an EBERO event and the critical registry functions that EBEROs provide as well as each of the other protections identified above.
- Single registrant TLDs (including those under Specification 13) should be exempt from EBERO requirements.
- Allow publicly traded companies (including their officers, directors, material shareholders, etc.) to be exempt from background screening requirements as they undergo extensive similar screenings.
- Improve the background screening process to be more accommodating, meaningful, and flexible for different regions of the world, for example entities in jurisdictions that do not provide readily available information.

d. What are the options under consideration, along with the associated benefits / drawbacks?

None.

e. What specific questions are the PDP WG seeking feedback on?

- The Deliberations section below discusses several alternate methods to fund the EBERO program. Please provide any feedback you have on the proposed methods and/or any other methods to fund EBERO in subsequent procedures?
- Should single-registrant TLDs (including .brand TLDs and those TLDs exempt from the Code of Conduct) be exempt from certain registrants protections? If yes, which ones and under what conditions? If not, why?
- ICANN's Program Implementation Review Report stated that it may be helpful to consider adjusting background screening requirements to allow for meaningful review in

[10] https://www.icann.org/news/announcement-3-2011-12-23-en

different circumstances. Examples cited include newly formed entities and companies in jurisdictions that do not provide readily available information.[11] Please provide feedback on ICANN's suggestion along with any suggestions to make applicant background screenings more relevant and meaningful.

- The Work Track is considering a proposal to include additional questions to support the background screening process. Should these be added? Why or why not?:
    - Have you had a contract with ICANN terminated or are being terminated for compliance issues?
    - Have you or your company been part of an entity found in breach of contract with ICANN?

f. Deliberations

The Work Track discussed several aspects of registrant protections in detail. It considered the Emergency Back End Registry Operator (EBERO) mechanism, including the Continued Operations Instrument (COI), and as well as triggers for activating an EBERO event. In addition, the Work Track reviewed procedures and requirements that applied in the 2012 round for background screenings conducted on applying entities, individuals, and organizations listed in Questions 9-11 of the application.

The Work Track noted that several CC2 comments pointed to areas where certain registrant protections may not be necessary in subsequent procedures. These comments stated that certain registrant protection measures appear unnecessary and irrelevant if there are no third-party registrants to protect, namely in the case of closed registries. Comments specifically pointed to .Brands as candidates for exemption from EBERO, COI, and possibly data escrow requirements. Other CC2 comments supported maintaining the current protections.

EBERO

The Work Track reviewed the five critical registry functions: (1) DNS resolution for registered domain names; (2) operation of the Shared Registration System; (3) provision of Whois service; (4) registry data escrow deposits; and (5) maintenance of a properly signed zone in accordance with DNSSEC requirements. Section 6 of Specification 10 of the Registry Agreement provides emergency thresholds for the critical registry functions. Reaching any one of these thresholds could trigger an EBERO event. The Work Track considered whether these critical functions remain appropriate and are not recommending any changes at this time. Work Track members generally supported continuing to use the EBERO model for instances of technical failure by the back-end provider.

The Work Track submitted a series of questions to the ICANN Organization about the number of times emergency thresholds had been reached. The ICANN Organization responded that thresholds had been reached 27 times. According to the response, "In each of these 27 cases, ICANN technical teams were already working with the registry before the threshold was

[11] https://www.icann.org/en/system/files/files/program-review-29jan16-en.pdf

reached. In many of the cases, the TLD had no registrations. In the cases in which there were registrations, ICANN considered the EBERO option. However, ICANN determined that it would have less of a security and stability impact to assist the RSP through resolution rather than activating an EBERO event."[12] Since the Work Track received this response, ICANN activated an EBERO for the first time.[13] The Work Track notes that details about this case may be useful for further discussions regarding EBERO.

In CC2 comments the RySG made a proposal regarding a process for the situation where the registry operator does not also serve a technical back-end function and where the back-end is still functional, but the registry operator is failing financially. In such situations, the RySG suggested that it would make sense to leave the customers on the existing back-end throughout the registry operator transition process. Under the current process for circumstances where the registry operator is in breach of the Registry Agreement, the registry service provider is a separate entity, and the breach was not related to a technical failure, it is up to the successor registry operator to decide if the back-end remains in place.[14] The proposal was also raised and supported by a Work Track member in Work Track discussions. Work Track members noted that there are some outstanding questions regarding this proposal, for example how the back-end would be financially compensated. Work Track members noted that this would not obviate the need for a program to exist for circumstances where both the registry operator also serves the back-end function. No conclusions were reached on this proposal and the Work Track encourages input for further consideration.

RSPs as Emergency Back-End Registry Operators?

Work Track 2 addressed the topic of Registrant Protections in general. Most elements of the Registrant Protections section of this report reflect discussions in Work Track 2. Work Track 1, however, considered one specific issue related to Registrant Protections that is included in this section. Work Track 1 discussed whether, in addition to providing traditional technical services, Registry Service Providers (RSPs) joining the RSP Pre-Approval Program[15] will also provide Emergency Backend Registry Operator (EBERO) services for their Registry Operators.

Some aspects of this potential service include:

- Registry Operators using an RSP Program participant will not be required to furnish a Continued Operations Instrument.
- RSP Program members could provide this service to all Registry Operators as part of their service offering. One possibility is that this service could be provided at no additional charge, i.e. the costs are included in the standard RSP pricing model.
- Vertically integrated RSPs (i.e. RSPs that are also Registry Operators) will need to have a independent, non-related, third-party to provide EBERO services in the event that the RSP-Registry operator fails.

[12] http://mm.icann.org/pipermail/gnso-newgtld-wg-wt2/2017-February/000078.html
[13] https://www.icann.org/news/announcement-2017-12-08-en
[14] https://archive.icann.org/en/topics/new-gtlds/registry-transition-processes-clean-30may11-en.pdf
[15] For additional information about the Registry Service Provider Program, please see section 1.2.6 of this report.

In developing this proposal, Work Track 1 recalled challenges from the 2012 round and the Continued Operations Instrument (COI) requirement to ensure the availability of funds to perform critical registry functions in the case of an EBERO event. Work Track 1 discussed the lengthy issues of the COI with a nearly universal agreement that an alternate should be found. Work Track 2 also discussed the COI in general, as well as possible alternatives. Please see the following subsection ("Continued Operations Instrument") for additional information about these alternatives.

With the RSP market developing the way it has, with relatively few RSPs serving nearly all the Registry Operators, Work Track 1 noted that there is the opportunity for the RSPs to pool the risk and furnish EBERO services for all their clients at a relatively low cost. By participating in the Program, RSPs have demonstrated the capacity to easily provide EBERO services for a random failure. Work Track 1 members pointed out that, if there is a failure, the RSP workload would actually decrease as the EBERO provides only five registry functions and, generally, the RSP would provide a Registry Operator with more functionality than required of the EBERO.

Whether the EBERO Service "insurance" should be provided to all RSP clients is a complex issue and merits more discussion.

Work Track 1 assessed that this bundling of services model may lead to less risk, improved affordability, and increased reliability. One policy reason for requiring all Registry Operators who also serve as an RSP to join in the EBERO service is that greater numbers create a greater shared risk pool, making the risk more stable and the program more affordable and reliable.

- Lower RSP cost: If every RSP customer participates in the EBERO program it could lower the RSPs cost per Registry Operator for maintaining the program.
- Keep it simple and stable: If RSPs charge an additional fee for the EBERO service, Registry Operators will forum shop, creating a complex ecosystem where Registry Operators are moving between EBERO providers and RSPs. This will create compliance tasks for ICANN - with increased ICANN costs for RSPs. If every Registry Operator is automatically signed on with their RSP for EBERO services, compliance oversight is minimized.
- Disadvantages to smaller players: In a market where vertically integrated RSPs can serve themselves without transfer cost and can offer lower pricing to larger Registry Operators, small Registry Operators might find themselves with a high EBERO fee or retaining the COI. The EBERO is likely more important for smaller entities and consideration of a pricing structure should not put them at a disadvantage.

Finally, this system should perform well as there is no "single point of failure." If the Registry Operator fails, the RSP EBERO takes over. If the RSP fails, the Registry Operators will engage with another RSP. One issue arises where the RSP is vertically integrated, i.e., operating one or more Registries where a simultaneous RSP / Registry Operator could fail. In this circumstance, the RSPs might contract with another RSP or allow the ICANN EBERO to provide the service.

Continued Operations Instrument

As discussed above, the Continued Operations Instrument (COI) is the mechanism by which ICANN ensures that the necessary funds will be available to pay for the performance of critical registry functions in the case of an EBERO event. In question 50 of the New gTLD application,

applicants provided a cost estimate for funding critical registry functions on an annual basis in case of registry failure. The applicants needed to provide evidence that they would be able to fund the performance of critical registry functions with either an irrevocable standby Letter of Credit (LOC) or an irrevocable cash escrow account. Evaluation criteria for question 50 included a series of requirements for the COI.

The Program Implementation Review Report noted a high number of of Clarifying Questions were issued for question 50, indicating that many COIs did not meet the requirements or that additional action was needed to correct an issue.[16] A significant barrier for many applicants was that the Letter of Credit needed to name “ICANN or its designee” as the beneficiary. Many banks viewed the term "designee" as problematic because they needed to perform checks on the beneficiary, and they cannot do that for an unnamed beneficiary. According the the report, 82% of applications received a CQ on question 50. Noting that many applicants had difficulty meeting the requirements associated with the COI and nearly all needed to make amendments to their COI, the report suggested exploring alternate funding mechanisms to address TLD failure.[17]

Responses to CC2, input from Work Track 2 members, and a review of discussions at ICANN45[18] on this topic largely echoed the concerns raised in the Program Implementation Review Report regarding the COI, with many in Work Track 2 considering the mechanism cumbersome and unreasonable. Work Track 2 considered the following proposals as alternatives to the COI:

- A pooled insurance model, where each party pays to create a fund that covers the percentage chance of failure
- ICANN funds EBERO and temporarily maintains an abandon registry out of its regular revenue stream
- Seek proposals from EBEROs (past or future) to see if there is a fixed annual fee that could be paid for the year to cover any eventuality
- Require that each applicant make a deposit as a guarantee of performance subject to charges for any breach or costs incurred by ICANN

Work Track 2 welcomes feedback on potential alternatives to the COI.

Some Work Track 2 members were not convinced that the COI should be eliminated but suggested that the requirements should be modified so that applicants face fewer obstacles in meeting them. Work Track members noted that if the COI is retained, it may be helpful to review the associated cost measurements. Some suggestions were also put forward for improving the LOC if it is determined that this mechanism will remain in place for subsequent procedures. In its response to CC2, the RySG suggested the following:

[16] https://www.icann.org/en/system/files/files/program-review-29jan16-en.pdf
[17] Ibid
[18] http://archive.icann.org/en/meetings/toronto2012/bitcache/Transcript_%20New%20gTLD%20Update%20for%20Applicants-vid=42847&disposition=attachment&op=download.pdf

- Calculate the size of LOCs by establishing “steps” based on a percentage level—a 10% change in estimated and LOC-funded Domains Under Management.
- Review LOCs annually.
- Language requirements for the LOC should be commercially reasonable and provided to applicants in advance.
- Provide a means to more easily incorporate additional TLDs into an LOC.[19]

Work Track 2 reviewed these suggestions but did not come to agreement on them.

Background Screening

Work Track 2 discussed whether existing screening measures on applying entities, individuals, and organizations listed in Questions 9-11 of the application effectively met the goals of conducting due diligence. The Work Track agreed that it is important to conduct background checks as part of the Initial Evaluation of applications but recognized that data might be necessary to do further substantive analysis of the effectiveness of such screenings.

The Work Track considered that in the 2012 round, applying entities that were traded on top-25 exchanges were deemed to have passed general business diligence and criminal history screening. Work Track members expressed support for this continuing to be the case in the future.

The Program Implementation Review Report stated that some applicants were reluctant to provide personal information about individuals associated with publicly-listed companies. Several CC2 comments supported this position, as did a number of Work Track members.

Work Track members further reviewed the suggestion in the Program Implementation Review Report that it may be helpful to consider adjusting background screening requirements to allow for meaningful review in different circumstances. Examples cited include newly formed entities and companies in jurisdictions that do not provide readily available information.[20] Work Track members expressed support for exploring alternative procedures and mechanisms to address these circumstances.

In CC2, the Work Track requested feedback on whether background screening should be performed during Initial Evaluation or at the time of contract execution. CC2 comments generally supported conducting background checks during Initial Evaluation, and again as necessary and appropriate to address any changes in the application.

The Work Track considered a proposal to include additional questions to support the

[19] See RySG response to question 2.3.2: https://docs.google.com/spreadsheets/d/1tcWZt1bdoYH7vJl2Yi9G0jah7QzyhqU99tXnl3qV0rc/edit#gid=703405430

[20] https://www.icann.org/en/system/files/files/program-review-29jan16-en.pdf

background screening process:

- Have you had a contract with ICANN terminated or are being terminated for compliance issues?
- Have you or your company been part of an entity found in breach of contract with ICANN?

The Work Track did not reach agreement in support of recommending these additional questions.

One Work Track member expressed concern about the criteria related to cybersquatting and referenced a particular case where, in this individual's view, the background screening was not applied. The Work Track member noted that UDRPs are usually against entities and not individuals, so a principal in a company that is subject to cybersquatting cases may still pass a background screening in the application process. From this perspective, if the anti-cybersquatting criteria remain in the next version of the AGB, additional measures should be put into place to ensure that individuals tied to cybersquatting are effectively identified. Work Track members noted the concern but raised that it is a challenge to measure the prevalence of related issues absent data in this area.

g. Are there other activities in the community that may serve as a dependency or future input to this topic?

None.

1.7.3 Closed Generics (also known as Exclusive Generics)

a. What is the relevant policy and/or implementation guidance (if any)?

Following the publication of the gTLD applications in June 2012, concerns were brought to ICANN's attention regarding some applications for strings which are labelled as "Closed Generic." Though there is no uniform definition of a Closed or Exclusive Generic, Specification 11 of the Base Registry Agreement indirectly defines this as a TLD that imposes eligibility criteria for registering names in the TLD which corresponds to a "Generic String" that limits registrations exclusively to a single person or entity and/or that person's or entity's "Affiliates" (as defined in Section 2.9(c) of the Base Registry Agreement). "Generic String" means a string consisting of a word or term that denominates or describes a general class of goods, services, groups, organizations or things, as opposed to distinguishing a specific brand of goods, services, groups, organizations or things from those of others.[21]

[21] See https://newgtlds.icann.org/sites/default/files/agreements/agreement-approved-31jul17-en.html at Specification 11, Section 3(d).

The 2007 Final Report did not address this topic.

b. How was it implemented in the 2012 round of the New gTLD Program?

The Applicant Guidebook did not provide guidance related to this issue.

The Base Registry Agreement envisioned having Exclusive Registries where all of the registrations in the TLD are registered to the Registry Operator and/or its Affiliates. In fact, Specification 9 included language that specifically allowed Exclusive Registries to be exempt from the Registry Operator Code of Conduct:

> *Registry Operator may request an exemption to this Code of Conduct, and such exemption may be granted by ICANN in ICANN's reasonable discretion, if Registry Operator demonstrates to ICANN's reasonable satisfaction that (i) all domain name registrations in the TLD are registered to, and maintained by, Registry Operator for its own exclusive use, (ii) Registry Operator does not sell, distribute or transfer control or use of any registrations in the TLD to any third party that is not an Affiliate of Registry Operator, and (iii) application of this Code of Conduct to the TLD is not necessary to protect the public interest.*[22]

Although the Base Registry Agreement contemplated Exclusive Use or Closed Registries, after the launch of the 2012 round, GAC members submitted Early Warnings during the public comment period for applications, raising concern that Exclusive Use or Closed TLDs matching a generic term (as opposed to their own brand) should not be allowed. In these comments they expressed that using a generic string in an exclusive manner created an unfair advantage and was contrary to the public interest. In the Beijing Communique the GAC provided Advice that "For strings representing generic terms, exclusive registry access should serve a public interest goal."[23]

The ICANN Board initiated[24] a public comment period[25] on the topic of Closed Generics, and a staff report was produced.[26] The GNSO Council sent a letter to the Board in response to the public comment period providing its perspective on the issue.[27] At the same time, ICANN solicited responses from 186 applicants for the strings identified by the GAC as being potentially

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[22] See Specification 9, Section 6 of the Registry Agreement: https://newgtlds.icann.org/sites/default/files/agreements/agreement-approved-31jul17-en.html

[23] https://gacweb.icann.org/display/GACADV/2013-04-11-Safeguards-Categories-2

[24] https://features.icann.org/closed-generic-top-level-domains

[25] https://www.icann.org/resources/pages/closed-generic-2013-02-05-en

[26] https://www.icann.org/en/system/files/files/report-comments-closed-generic-08jul13-en.pdf

[27] While the GNSO Council was not in a position to provide formal policy guidance with the short notice available, it stated that "although the GNSO did not explicitly consider the issue of 'closed generic' TLDs as part of the new gTLD PDP, we recall that the issue of restricting new gTLDs was, in general, considered and discussed. At that time, it was the view within the GNSO that it should not be the responsibility of ICANN to restrict the use of gTLDs in any manner, but instead to let new gTLD applicants propose various models; open or closed, generic or not." See https://gnso.icann.org/sites/default/files/filefield_36921/robinson-to-crocker-chalaby-07mar13-en.pdf

Closed Generic TLDs, asking whether they planned to operate the applied-for TLDs as exclusive access registries (defined as a registry restricted to a single person or entity and/or that person's or entity's "Affiliates" (as defined in Section 2.9c of the Registry Agreement)). Of the 186 applicants, all but five of them agreed to either withdraw their applications or to change their TLDs to being "open". In a resolution passed on 21 June 2015[28] the Board determined that remaining applicants from the 2012 round who had applied for non-contested strings and were seeking to operate Closed Generic TLDs would have the following options:

- *submit a change request to no longer be an exclusive generic TLD, and sign the current form of the New gTLD Registry Agreement;*
- *maintain their plan to operate an exclusive generic TLD. As a result, their application will be deferred to the next round of the New gTLD Program, subject to rules developed for the next round, to allow time for the GNSO to develop policy advice concerning exclusive generic TLDs; or*
- *withdraw their application for a refund consistent with the refund schedule in the Applicant Guidebook.*[29]

In effect, through this resolution, the ICANN Board banned Exclusive Generic / Closed Generic TLDs in the 2012 Round. The Board further requested that the GNSO consider this topic in future policy development work for subsequent procedures.[30]

A revision to the Registry Agreement included restrictions on Closed Generics under Specification 11 Public Interest Commitment 3(d).

c. What are the preliminary recommendations and/or implementation guidelines?

The subject of Closed Generics has proved to be one of the most controversial issues tackled by Work Track 2 with strong arguments made by both those in favor of allowing Closed Generics in subsequent rounds and those opposing Closed Generics and in favor of keeping the current ban. Because this PDP was charged not only by the GNSO Council to analyze the impact of Closed Generics and consider future policy, a number of options emerged as potential paths forward with respect to Closed Generics, though the working group was not able to settle on any one of them. These options are presented in (d) below.

d. What are the options under consideration, along with the associated benefits / drawbacks?

1. **No Closed Generics:** Formalize GNSO policy making it consistent with the existing Base Registry Agreement that Closed Generics should not be allowed.

[28] https://www.icann.org/resources/board-material/resolutions-new-gtld-2015-06-21-en#2.a
[29] Ibid
[30] Ibid

2. **Closed Generics with Public Interest Application:** As stated above, GAC Advice to the ICANN Board was not that all Closed Generics should be banned, but rather that they should be allowed if they serve a public interest goal. Thus, this option would allow Closed Generics but require that applicants demonstrate that the Closed Generic serves a public interest goal in the application. This would require the applicant to reveal details about the goals of the registry. Under this option, the Working Group discussed the potential of an Objections process similar to that of community-based objections challenging whether an application served a public interest goal. The Working Group recognized how difficult it would be to define the criteria against which such an application would be evaluated.
3. **Closed Generics with Code of Conduct:** This option would allow Closed Generics but require the applicant to commit to a code of conduct that addresses the concerns expressed by those not in favor of Closed Generics. This would not necessarily require the applicant to reveal details about the goals of the registry, but it would commit the applicant to comply with the Code of Conduct which could include annual self-audits. It also would establish an objections process for Closed Generics that is modelled on community objections.
4. **Allow Closed Generics:** This option would allow Closed Generics with no additional conditions but establish an objections process for Closed Generics that is modelled on community objections.

e. What specific questions are the PDP WG seeking feedback on?

- What are the benefits and drawbacks of the above outlined options?
- The Work Track noted that it may be difficult to develop criteria to evaluate whether an application is in the public interest. For options 2 and 3 above, it may be more feasible to evaluate if an application does not serve the public interest. How could it be evaluated that a Closed Generic application does not serve the public interest? Please explain.
- For option 3 above, how should a Code of Conduct for Closed Generics serving the public interest be implemented? The Work Track sees potential conflict with adding this provision to the current Code of Conduct (Specification 9). The Work Track also believes that this could be in a separate Specification if Closed Generics are seen as a separate TLD category. Would it be better to modify the current Code of Conduct or have a separate Code of Conduct for Closed Generics? Please explain.

f. Deliberations

Deliberations Overview:

The Work Track reviewed the history of Closed Generics and considered how the term “Closed Generic” should be defined. For the purposes of discussion in this Work Track, a “Closed Generic” TLD refers to a TLD representing a string that is a generic name or term[31] under which

[31] A “generic string” is currently defined in the Registry Agreement under Specification 11.3.d as “a string consisting of a word or term that denominates or describes a general class of goods, services, group,

domains are registered and usable exclusively by the registry operator or its affiliates. These TLDs operate in contrast to TLDs that have an "open" registration model or a restricted third-party registration model.

A significant task of the Work Track was to analyze the alleged harms and merits associated with allowing Closed Generics that were raised in the 2013 public comment period[32] and in subsequent discussions. In addition, the Work Track invited guest speakers with experience in the topic to discuss pros and cons associated with allowing Closed Generics. The Work Track reviewed responses to Community Comment 2 (CC2), noting that there was no single theme in the responses. While the Work Track has not reached any form of consensus on this issue, it has developed a set of possible options for further input.

The Work Track developed a "pros and cons" list leveraging input from CC2, public comment responses from 2013,[33] and additional materials shared by Work Track members.[34]

Key arguments supporting Closed Generics:

- promotes business model innovation and competition
- provides greater choice for registry operators
- supports free expression
- avoids problematic circumstances in which ICANN regulates business models, competition, and word classification

Key arguments opposing Closed Generics:

- harms competition
- harms choice of potential registrants
- favors large industry players
- confuses end users
- hinders expression by giving some players exclusive use of generic terms at the top-level

Pros: Closed Generics should be allowed	**Cons: Closed Generics should be restricted**

organization or things, as opposed to distinguishing a specific brand of goods, services, groups, organizations or things from those of others."

[32] https://www.icann.org/en/system/files/files/report-comments-closed-generic-08jul13-en.pdf

[33] Ibid

[34] See for example: https://forum.icann.org/lists/comments-closed-generic-05feb13/msg00174.html; https://www.internetnews.me/2013/02/23/5-reasons-why-closed-generic-new-gtlds-should-be-opposed/; https://www.icann.org/en/system/files/correspondence/neylon-et-al-to-chehade-et-al-24sep12-en.pdf; http://www.thehindu.com/opinion/op-ed/beauty-lies-in-the-domain-of-the-highest-bidder/article3929612.ece; https://iccwbo.org/publication/exp_499_icann_116_expert-determination/.

New types of TLDs could be a source of business model innovation. Innovation can lead to greater competition and new services that are beneficial to the public and promote consumer choice. ICANN is not a regulator and should not attempt to regulate issues related to competition and business models. There are no objective criteria for determining what constitutes a generic word. ICANN should not attempt to classify words for regulatory purposes. (concern related to Freedom of Expression). It is not possible to have universally applicable definitions for the term “generic” across languages. Therefore it is unclear how ICANN could apply policies around generic terms in a way that is fair and consistent. The purpose of expanding the DNS is to increase utility. Dictating the way TLDs can be used undermines this goal. Generic words are already in use by specific brands/companies at the second level (food.com, books.com, etc). There is little practical difference between using these terms at the first level and second level. There is little difference between Closed Generics and other TLDs already in play -- such as some community applications and brands that correspond to generic strings. There is no automatic link between owning a domain name and dominating a market signified by that string (see amazon.com and books.com, which is owned by Barnes	Generic words are a form of public space. It is not in the public interest to have these strings under the control of a single entity. Closed Generics harm competition - if a single player in a market has exclusive access to an industry-related generic TLD string, this player has an unfair advantage. Closed Generics favor large industry players, tipping the scales in favor of those who already dominate the market and potentially limiting consumer choice. Closed Generics reduce the number of options available to registrants. Closed Generics undermine the goals of the trademark system, which forbids individuals from gaining exclusive property rights in generic names of products and an unfair competitive advantage in the marketplace. Different business models for TLDs may confuse consumers. Closed Generics may mislead consumers: If closed, generic TLDs are approved, consumers may mistakenly believe that they are using a gTLD that allows for competition, when in reality the gTLD is closed and the apparently competitive products are being offered by a single entity. While generic strings are in use by specific brands and companies at the second level, the top level is different. The impact is greater. A new gTLD requires ICANN approval and substantial resources, both for the application and for the operation of the gTLD. Search engines are likely to give priority to pages associated with a gTLD that appears to be dedicated to content related to

& Noble). Regulation of Closed Generics limits free expression by imposing collective obligations and top-down regulations on domain owners. New gTLDs are valuable economic assets. ICANN policies should assure that these assets are allocated to their most highly valued uses. Closed Generics for brand owners may safeguard certain spaces from abuse and allows brands to save on defensive registrations under that TLD. In support of allowing Closed Generics on a case by case basis: Closed Generics can serve the public interest. ICANN should allow specific Closed Generics to operate if it can be established that they serve the public interest.	the search terms and more likely to be controlled by an established, relevant institution. The stakes are higher regarding ICANN delegation of a gTLD, and the public interest concerns must weigh more heavily than they do for individual domain names. Delegation of closed gTLDs may violate ICANN's Bylaws, the New gTLD Registry Operator Code of Conduct, and the New gTLD Registry Agreement. The exemption that permits closed gTLDs was intended for brand TLDs, not generic words that are common industry terms. ICANN's core values include promoting competition in the registration of domain names. For non-Latin character sets in languages such as Chinese and Japanese, Closed Generics will place entire cultural identities at risk. There will be loss of opportunity for people and businesses in that native language to express, pursue and flourish in TLD namespaces designed for them.

Work Track members agreed that one of the challenges in this debate is that there is no clear agreed upon set of goals with respect to Closed Generics. In pursuing the public interest, different participants in the discussion seek to maximize benefits and minimize harms to different parties. For example, when discussing consumer choice, the "consumer" could be the applicant, the registrant, or the end user. The Work Track considered which of these populations policy should seek to protect in serving the public interest. Work Track members did not agree to a single answer to this question.

Some Work Track members felt that analysis of harms should focus on harms to end users as opposed to harms to competitors, stating that ICANN should not be in a position to address competition law. In addition, they argued that competition law only addresses actual harms to competition, not anticipated harms. One proposed solution is to allow Closed Generics and handle any concerns about specific applications through objection procedures that focus on identifying harm to end users. The objections process for Closed Generics could be modeled on

the community objections model from the 2012 round. Other Work Track members felt that potentials harms to competitors should not be ignored in such a process.

The Work Track considered a summary of Community and Limited Public Interest objections filed against Closed Generic applications.[35] Using this document as a reference, the Work Track discussed that it might be possible to identify a path forward for developing a test to evaluate material detriment for objections related to Closed Generics.

Another proposed path forward was that the the burden could be placed on the applicant for a dictionary term to demonstrate that exclusive use would be in the public interest, and/or commit to a Code of Conduct. The Work Track welcomes input on the potential benefits and drawbacks of these proposals.

Work Track members stated that regardless of the outcome of discussions on Closed Generics, it is essential that the path forward is agreed upon and clearly documented prior to the launch of subsequent procedures. Work Track members noted that for the 2012 round, applications were submitted with the assumption that Closed Generics would be allowed, as no prohibition was contained in the Applicant Guidebook. However, the community discussions regarding Closed Generics took place after applications had been submitted, leaving applicants waiting to hear if their applications would be able to move forward. For future application windows, applicants must have a clear, common understanding of any rules and restrictions that will apply to their applications related to this issue.

The Work Track noted that if an objections procedure is established for Closed Generics, a procedure for post-delegation dispute resolution should be required as well. Studying existing post-delegation dispute resolution procedures may be useful in developing a new post-delegation procedure.

The Work Track further noted that a code of conduct for Closed Generics would require that the registry adhere to to the public interest. The Work Track may want to look at the existing specification language forbidding Closed Generics and provide recommendations for how this would serve to allow for Closed Generics that serve the public interest.

g. Are there other activities in the community that may serve as a dependency or future input to this topic?

The Work Track is not aware of any dependencies at this time.

1.7.4 String Similarity Evaluations

a. What is the relevant policy and/or implementation guidance (if any)?

[35]https://docs.google.com/spreadsheets/d/1kua4x0sLOXy5ZStMkzqG3oYnbkzbxCNMMIGCFURKJO4/edit?usp=sharing

Recommendation 2: “Strings must not be confusingly similar to an existing top-level domain.”

b. How was it implemented in the 2012 round of the New gTLD Program?

Module 2 of the 2012 AGB describes string similarity reviews. More specifically, AGB Section 2.2.1.1.2 extends the GNSO Recommendation and applies it not only to existing top-level domains, but also to reserved strings and for the purpose of grouping applications into contention sets such that no two strings are delegated if they meet this confusingly similar standard.

Section 2.2.1.2 defined “similar” as meaning “strings so similar that they create a probability of user confusion if more than one of the strings is delegated into the root zone.” The visual similarity check that occurs during Initial Evaluation is intended to augment the objection and dispute resolution process (see section 1.8.1) that addresses all types of similarity. This similarity review will be conducted by an independent String Similarity Panel.

In implementation, ICANN commissioned the development of an algorithmic tool called “SWORD” which was intended to supported assessments of string similarity.

c. What are the preliminary recommendations and/or implementation guidelines?

The Work Track recommends:

- Prohibiting plurals and singulars of the same word within the same language/script in order to reduce the risk of consumer confusion. For example, the combination of .CAR and .CARS would not be allowed.
- Expanding the scope of the String Similarity Review to encompass singulars/plurals of TLDs on a per-language basis and using a dictionary to determine the singular and plural version of the string for the specific language. Applications for singular/plural variations of each string will be placed in a contention set. Applications should not be automatically disqualified because of a single letter difference with an existing TLD. For example, .NEW and .NEWS should both be allowed.
- Eliminating the SWORD Tool in subsequent procedures.

d. What are the options under consideration, along with the associated benefits / drawbacks?

None.

e. What specific questions are the PDP WG seeking feedback on?

None.

f. Deliberations

The Work Track focused on addressing the following questions on this topic:

- Were the mechanisms from the 2012 round effective in preventing consumer confusion, resolving contention, and providing consistent results?
    - Was the the guidance on the standard of confusing similarity sufficiently detailed to ensure that results of the evaluation consistently met the goals of the review?
    - Were there other specific issues related to implementation of the string similarity review in the 2012 round?

The Work Track identified several areas where additional work could reduce the risk of consumer confusion, improve predictability of the process, and increase the consistency of String Similarity Review outcomes.

Singulars and Plurals

The GAC,[36] the ALAC,[37] and the DG[38] had previously raised that existing guidance does not address the issue of singulars and plurals of the same word and that additional guidelines may be needed. Many of the CC2 comments on this topic supported further work on singulars/plurals. Work Track members also expressed that new guidelines could improve clarity and consistency of application processing and provided greater predictability for applicants.

In line with a proposal submitted by the Registry Stakeholder Group,[39] the Work Track agreed that singulars and plurals in the same language should not be allowed under the standard of confusing similarity. While some community members expressed a desire to include foreign language equivalents in the singular and plural aspect of string similarity evaluation, others raised concern that this might serve as a disadvantage to IDNs. There was no agreement in the Work Track to include different languages in the same contention set or evaluation result set. Therefore, recommendations from the Work Track only apply to singular/plural combinations on a per language basis.

SWORD

The Work Track discussed concerns that there was insufficient correlation between the results of the SWORD Tool and the outcomes of the String Similarity Review, indicating that that tool, as implemented, may not have been a helpful resource for evaluators and applicants. Several CC2 comments supported eliminating the SWORD Tool. Some Work Track members suggested that the algorithm could be revised and improved for subsequent procedures.

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[36] https://gacweb.icann.org/display/GACADV/2013-04-11-PluralStrings

[37] https://atlarge.icann.org/advice_statements/7151

[38] https://community.icann.org/download/attachments/58735957/Section%204.4.2.pdf?version=1&modificationDate=1460741520000&api=v2

[39] See https://docs.google.com/document/d/13mNrOUrO2_KPa1xUXJ7Glxx_Ps5Aaczes2jEz8E-zeY/edit

In the absence of specific information about the future potential of the tool, the Work Track did not ultimately have confidence in the utility of SWORD Tool to provide consistent and predictable results. Therefore the Work Track agreed that SWORD should be eliminated.

Process Timing

Work Track members and community comments raised concerns related to the relative timing of string similarity reviews and the deadline for filing String Confusion Objections in the 2012 round. In the first New gTLD application period, the results of the string similarity review were released two weeks before the deadline to file String Confusion Objections. There was little time to consider the results of the String Similarity Review, determine if one wanted to file a String Confusion Objection, and then prepare the materials for that objection. Work Track members supported the goal of ensuring that appropriate timetables are set for subsequent procedures to allow for all procedures and mechanisms to be exercised fully.

Additional issues discussed by the Work Track:

Contention Resolution

The Work Track discussed whether Community Priority Evaluation and auctions of last resort continue to be appropriate methods of resolving contention going forward. CC2 comments generally supported the idea that existing contention resolution mechanisms are sufficient. While some Work Track members questioned whether auctions of last resort are in the public interest, no alternatives were proposed.

Private Auctions

There were concerns raised in community comments that private auctions lead to speculative applications. Work Track members noted that while rules could be established to disincentivize gaming or abuse of private auctions it would be unlikely to eliminate this practice and would be difficult to manage. Therefore, no recommendations were put forward.

Synonyms in String Similarity Review

Some community members support including synonyms (for example .DOCTOR and .PHYSICIAN) in the String Similarity Review. They expressed that this could be particularly important when the strings are associated with a highly-regulated sector and one of the strings is a verified TLD. There was no agreement in the Work Track in support of this proposal.

g. Are there other activities in the community that may serve as a dependency or future input to this topic?

No.

1.7.5 Internationalized Domain Names (IDNs)

a. What is the relevant policy and/or implementation guidance (if any)?

Principle B: "Some new generic top-level domains should be internationalised domain names (IDNs) subject to the approval of IDNs being available in the root."

b. How was it implemented in the 2012 round of the New gTLD Program?

The Applicant Guidebook provides exhaustive requirements in *Part II, Requirements for Internationalized Domain Names.*

In brief, IDN TLDs of 2 or more Unicode characters were allowed, provided IDNA requirements were met.

The Applicant Guidebook allowed applicants to identify variant IDN TLDs, though they were not allowed to be delegated until a variant management solution is developed and implemented.

c. What are the preliminary recommendations and/or implementation guidelines?

- General agreement that IDNs should continue to be an integral part of the program going forward (as indicated in Principle B of the original Final Report on New gTLDs).
- General agreement that compliance with Root Zone Label Generation Rules (RZ-LGR, RZ-LGR-2, and any future RZ-LGR rules sets) should be required for the generation of IDN TLDs and valid variants labels.
- General agreement that 1-Unicode character gTLDs may be allowed for script/language combinations where a character is an ideograph (or ideogram) and do not introduce confusion risks that rise above commonplace similarities, consistent with SSAC and Joint ccNSO-GNSO IDN Workgroup (JIG) reports. [Please see relevant question in section (f) below].
- Implementation Guidance: General agreement that to the extent possible, compliance with IDNA2008 (RFCs 5890-5895) or its successor(s) and applicable Root Zone Label Generation Rules (RZ-LGR, RZ-LGR-2, and any future RZ-LGR rules sets) be automated for future applicants.
- Implementation Guidance: General agreement that if an applicant is compliant with IDNA2008 (RFCs 5890-5895) or its successor(s) and applicable LGRs for the scripts it intends to support, Pre-Delegation Testing should be unnecessary for the relevant scripts.

The Work Track discussed variants of IDN TLDs and is aware that the community will be tasked with establishing a harmonized framework (i.e., in gTLDs and ccTLDs) for the allocation of IDN variant TLDs of IDN TLDs. There is general agreement on the following:

- IDN gTLDs deemed to be variants of already existing or applied for TLDs will be allowed provided: (1) they have the same registry operator implementing, by force of written

agreement, a policy of cross-Variant TLD bundling and (2) The applicable RZ-LGR is already available at the time of application submission.

d. What are the options under consideration, along with the associated benefits / drawbacks?

- Question two (2) below regarding "bundling" asks whether the unification of implementation policies with respect to how variants are handled in gTLDs are matters for this PDP to consider or whether those matters should be handled through an Implementation Review Team or by each individual Registry Operator.

e. What specific questions are the PDP WG seeking feedback on?

1. For the recommendation regarding 1-Unicode character gTLDs above, can the more general "ideograph (or ideogram)" be made more precise and predictable by identifying the specific scripts where the recommendation would apply? Please see script names in ISO 15924.
2. Should the policy of bundling second-level domains across variant TLDs be unified for all future new gTLDs or could be it TLD-specific? If unified, should it be prescribed in the WG final report or chosen at implementation? If TLD-specific, could it be any policy that adequately protects registrants or would it need to be chosen from a menu of possible bundling implementations ? Currently known bundling strategies[40] include PIR's .ong/.ngo, Chinese Domain Name Consortium guidance and Latin-language supporting ccTLDs such as .br and .ca.
3. Are there any known specific scripts that would require manual validation or invalidation of a proposed IDN TLD?
4. For IDN Variant TLDs, how should the Work Track take into account the Board requested and yet to be developed IDN Variant Management Framework?

f. Deliberations

The Work Track initiated its discussions on the IDNs topic by inviting and receiving an update[41] on the IDN Program from Sarmad Hussain, Director of the program. This presentation provided a solid basis for future discussions on this topic.

The Work Track believes that the process for submission and validation of IDN tables was cumbersome and highly manual, though Root Zone Label Generation Rules (RZ-LGR) did not exist at the time. It is anticipated that the ongoing work of the community will streamline the

[40] https://tools.ietf.org/html/draft-ietf-regext-bundling-registration-02 provides more definitions and descriptions of bundling strategies

[41] See relevant slides here: https://community.icann.org/download/attachments/58735965/IDN%20Program%20Update%20-WT4.pdf?version=1&modificationDate=1486620902000&api=v2

submission of valid IDN strings and its IDN variants because of the availability of RZ-LGR in the future.

Some in the Work Track felt that the prohibition against single character IDN TLDs was too restrictive for certain scripts, especially those where a single character can hold the meaning of word or even a phrase. However, the Work Track acknowledges that the single character IDN restriction is reasonable in other scripts. The Work Track considered the *JIG Final Report on Single Character IDN TLDs*[42] that supported the GNSO's recommendations on single character IDNs, which states:

> *Single and two-character U-labels on the top level and second level of a domain name should not be restricted in general. At the top level, requested strings should be analyzed on a case-by-case basis in the new gTLD process depending on the script and language used in order to determine whether the string should be granted for allocation in the DNS with particular caution applied to U-labels in Latin script.*

On the Work Track's 25 May 2017 call, Patrik Fältström, then Chair of the SSAC, provided an overview of SSAC Advice related to IDNs (and also Name Collisions and Root Zone Scaling). There was discussion about coordinating with the SSAC to determine if there is any change warranted to their existing advice that currently recommends against allowing single character IDNs[43]. In deliberations on the issue of single character IDNs, the Work Track did not find any significant concerns related to the security and stability of the DNS in allowing single character IDNs in limited instances. However, the Work Track understands that determinations of validity on a case-by-base basis lacks predictability and believes that the identification of valid scripts in which single character IDNs are allowable would be beneficial.

In regards to variant TLDs, during the update from Sarmad Hussain, the Work Track discussed the ICANN Board resolution from September of 2010,[44] which stated "no variants of gTLDs will be delegated through the New gTLD Program until appropriate variant management solutions are developed." Acknowledging that ongoing work to develop an IDN variant management framework may take place, the Work Track generally agreed on preliminary recommendations. Some in the Work Track believe that IDN variants should be operated by a single registry operator, by force of written agreement. There was broad agreement that IDN variants should be determined by RZ-LGR, as the relevant RZ-LGR should be complete and available for use at the time of application submission.

As further justification for variant TLDs, some in the Work Track believe that variant TLDs would better support end-users for languages with multiple scripts (like the Chinese language that has two scripts, Simplified and Traditional) or using ASCII and Latin Script IDNs (like .example and

[42] See Final Report here: https://ccnso.icann.org/sites/default/files/filefield_22667/jig-final-report-single-character-idns-08mar11-en.pdf
[43] See SSAC952 here: https://www.icann.org/en/system/files/files/sac-052-en.pdf
[44] See Board resolution here: https://www.icann.org/resources/board-material/resolutions-2010-09-25-en

.exämple). There was also support to require that operators of IDN variant TLDs have a policy for cross-Variant TLD bundling.

The Work Track believes that continuing to support IDNs and allowing for IDN variants to be delegated are necessary to avoid curtailing the ability of non-English populations to properly express their languages in the DNS.

g. Are there other activities in the community that may serve as a dependency or future input to this topic?

- RZ-LGR-n (where "n" means the most current version of the root zone label generation rules)
- Study on how to apply RZ-LGR-n (https://www.icann.org/news/announcement-2018-02-08-en)
- Unicode Standard
- IETF IDNA Standards
- ICANN IDNA

1.7.6 Security and Stability

a. What is the relevant policy and/or implementation guidance (if any)?

Principle D: "A set of technical criteria must be used for assessing a new gTLD registry applicant to minimise the risk of harming the operational stability, security and global interoperability of the Internet."

Recommendation 4: "Strings must not cause any technical instability."
Recommendation 7: "Applicants must be able to demonstrate their technical capability to run a registry operation for the purpose that the applicant sets out."
Recommendation 18: "If an applicant offers an IDN service, then ICANN's IDN guidelines must be followed."

b. How was it implemented in the 2012 round of the New gTLD Program?

There were several aspects of the New gTLD Program that sought to promote security and stability. During the application evaluation portion, the following reviews were relevant:

- The applied-for string was evaluated during the **DNS Stability** review, which sought to determine whether the string might cause instability in the DNS. As an element of this review, the applicant's IDN tables were evaluated, if applicable. An evaluation panel performed this review.

- The applicant's proposed registry services were reviewed during the **Registry Services Review**, in order to determine whether they might cause a possible adverse impact on security or stability. Customary registry services were defined in the Applicant Guidebook, but if the applicant proposed to provide any of them in a unique manner or it proposed additional registry services, a preliminary determination would be made as to whether they would need to be further evaluated by the Registry Services Technical Evaluation Panel (RSTEP). An evaluation panel performed the preliminary review.[45]
- The applicant's technical capabilities and operational plans for its TLD were evaluated in the **Technical/Operational Review**. The applicant provided responses to a series of questions (24-44). The questions could receive a score of 0, 1, and in some cases 2. The applicant could not receive a zero on any question and had to achieve a minimum score in order to pass. An evaluation panel performed this review.

Additionally, prior to delegation of a successful application, applicants had to pass Pre-Delegation Testing. This element will be discussed in section [1.10.1] of this report.

One additional element on Security and Stability, but unrelated to applicant reviews, are the guidelines for root zone scaling. Based on an ICANN org paper titled "Delegation Rate Scenarios for New gTLDs"[46], ICANN predicted that it would only be able to process a maximum of 1,000 delegations per annum[47].This number served as the basis for analysis by the technical community prior to the 2012 New gTLD Round. The technical community determined that a 1,000 delegations per year would not pose a security and stability threat. It is important to note that the technical community did not seek to determine a specific maximum delegation rate on the basis of security of stability[48]. Based on this analysis, ICANN org committed to delegate no more than 1,000 gTLDs per year.

c. What are the preliminary recommendations and/or implementation guidelines?

Sections [1.7.5] on IDNs, [1.7.8] on Name Collisions, and [1.7.7] for details about Registry Services Review and Technical/Operational Review contain a number of recommendations that are relevant to Security and Stability..

The Work Track suggests the following as Implementation Guidance: The application submission system should do all feasible algorithmic checking of TLDs, including against RZ-LGRs and ASCII string requirements, to better ensure that only valid ASCII and IDN TLDs can be submitted. A proposed TLD might be algorithmically found to be valid, algorithmically found

[45] It should be noted that just because an applicant proposed new registry services in their application, and the applicant passed technical evaluation, it did not mean that those services were deemed approved by ICANN.
[46] See paper here: https://archive.icann.org/en/topics/new-gtlds/anticipated-delegation-rate-model-25feb10-en.pdf
[47] The specific evaluation processing number identified was actually 924 per annum, but the number was rounded to 1,000 for practical purposes.
[48] See Impact on Root Server Operations and Provisioning Due to New gTLDs here: http://newgtlds.icann.org/en/about/historical-documentation/root-scaling-27jun12-en.pdf

to be invalid, or verifying its validity may not be possible using algorithmic checking. Only in the latter case, when a proposed TLD doesn't fit all the conditions for automatic checking, a manual review should occur to validate or invalidate the TLD.

The Work Track also considers the topic of name collisions to be relevant to security and stability. See [1.7.8] on Name Collisions for further detail.

For root zone scaling, the Work Track generally supports raising the delegation limit, but also agrees that ICANN should further develop root zone monitoring functionality and early warning systems as recommended by the SSAC, the RSSAC and the technical community.

d. What are the options under consideration, along with the associated benefits / drawbacks?

None.

e. What specific questions are the PDP WG seeking feedback on?

1. To what extent will discussions about the Continuous Data-Driven Analysis of Root Stability (CDAR) report,[49] and the analysis on delegation rates, impact WG discussions on this topic? How about the input sought and received from the SSAC, RSSAC, and ICANN org discussed below in section (f), under the heading **Root Zone Scaling?**

f. Deliberations

DNS Stability:

The Work Track noted that there were some implementation related challenges resulting from the manual review process of IDN tables, which was required in the absence of Root Zone Label Generation Rules (RZ-LGR) at the time. With the substantial progress in establishing RZ-LGR, the process should be able to be streamlined. Please see section [1.7.5] on IDNs for more detailed information.

The Work Track found that the larger issue that arose after program launch was the identification of Name Collisions by the Security and Stability Advisory Committee (SSAC) as an acute issue that required mitigation prior to the delegation of any TLDs. However, it should be noted that the issue was raised in comments going back to 2009 (http://www.circleid.com/posts/20090618_most_popular_invalid_tlds_should_be_reserved/), and the issue was at some level captured in the Applicant Guidebook, where it stated, "Any new TLD registry operator may experience unanticipated queries, and some TLDs may experience a non-trivial load of unanticipated queries…," the issue of name collisions was considered

[49] See Report here: https://www.icann.org/en/system/files/files/cdar-root-stability-final-08mar17-en.pdf

inadequately addressed by the SSAC. Please see section [1.7.8] on Name Collisions for more detailed information.

Registry Services Review and **Technical/Operational Review**

Please consult sections [1.7.5] on IDNs, [1.7.8] on Name Collisions, and [1.7.7] for details about Registry Services Review and Technical/Operational Review.

Root Zone Scaling

On the Work Track's 25 May 2017 call, Patrik Fältström, then Chair of the SSAC, provided an overview of SSAC Advice related to Root Zone Scaling (and also Name Collisions and IDNs). In his presentation, he noted that the SSAC advises that the more important factor to consider, rather than a maximum number of annual delegations or in total, is managing the rate of change and ensuring that robust monitoring of the root zone is taking place.

The Work Track considered a number of the existing resources that looked at root zone scaling and noted that the studies were based against ICANN org's estimates for maximum evaluation capacity (e.g., ~1,000 gTLDs per year) and did not seek to identify a maximum number of delegations from a security and stability perspective[50].

The Work Track and wider Working Group expect that the changes to be recommended by this PDP WG will have the effect of creating efficiencies within the program, likely allowing for the evaluation capacity to increase. The Work Track also considered the scenario where a large number of applications is received (e.g., 10,000) and how long that would take to delegate all applications based on the current delegation limits (i.e., ~10 years). Based on these considerations, the Work Track reached out to the Root Server System Advisory Committee (RSSAC), Security and Stability Advisory Committee (SSAC), and ICANN org's Office of the CTO (OCTO) and Global Domains Division (GDD) to inquire whether the delegation rate limitations could be revisited[51].

Feedback from the SSAC recommended that ICANN should continue developing monitoring and early warning capabilities rather than trying to identify a threshold. The SSAC also noted that the focus should be on the rate of change in the root zone rather than the total number of delegated strings for a given calendar year. The feedback from ICANN org focused on the components (e.g., based on the outcomes of this PDP) that will impact operational capacity, as well as the need to consult with the technical community and other organizations in the delegation process (i.e., PTI and Verisign). The RSSAC feedback also focused on rate of change rather than absolute magnitude. The RSSAC strongly recommended that delegations should not increase more than about 5% per month, allowing for minor variations from time to

[50] See email from Work Track 4 co-lead Rubens Kuhl here: https://mm.icann.org/pipermail/gnso-newgtld-wg-wt4/2017-June/000099.html
[51] See letters to RSSAC, SSAC, and OCTO/GDD and their respective responses here: https://community.icann.org/x/Xz2AAw

time. The Work Track noted that additional justification for the 5% number would be welcome, as it appeared somewhat arbitrary.

Taking into consideration the feedback received, the Work Track generally supported lifting the delegation limit, but at the same time, further developing root zone monitoring functionality.

Emoji as Top Level Domains?

The Work Track only very briefly touched on emoji, when it was brought up by then SSAC Chair, Patrik Fältström. The SSAC strongly discourages the registration of any domain name that includes emoji in any of its labels. Current new gTLD Registry Agreements and Registrar Accreditation Agreements require adherence to IDNA2008, which does not allow the usage of emoji. No Work Track members expressed the desire to change this status quo for future new gTLDs.

g. Are there other activities in the community that may serve as a dependency or future input to this topic?

None.

1.7.7 Applicant Reviews: Technical & Operational, Financial and Registry Services

A. What is the relevant policy and/or implementation guidance (if any)?

Principle D: "A set of technical criteria must be used for assessing a new gTLD registry applicant to minimize the risk of harming the operational stability, security and global interoperability of the Internet."
Principle E: "A set of capability criteria for a new gTLD registry applicant must be used to provide an assurance that an applicant has the capability to meet its obligations under the terms of ICANN's registry agreement."

Recommendation 1: "ICANN must implement a process that allows the introduction of new top-level domains. The evaluation and selection procedures for new gTLD registries should respect the principles of fairness, transparency and non-discrimination. All applicants for a new gTLD registry should therefore be evaluated against transparent and predictable criteria, fully available to the applicants prior to the initiation of the process. Normally, therefore, no subsequent additional selection criteria should be used in the selection process.
Recommendation 7: "Applicants must be able to demonstrate their technical capability to run a registry operation for the purpose that the applicant sets out."
Recommendation 8: "Applicants must be able to demonstrate their financial and organizational operational capability."

Recommendation 9: “There must be a clear and pre-published application process using objective and measurable criteria.”
Recommendation 18: “If an applicant offers an IDN service, then ICANN’s IDN guidelines must be followed.”

Registry Services Evaluation Policy[52]: a Consensus Policy that governs the processes and procedures to be followed when a Registry proposed the introduction of a new Registry Service (as that term is defined in the Base Registry Agreement).

B. How was it implemented in the 2012 round of the New gTLD Program?

The applicant reviews were implemented via a set of questions where the answers could be non-scored or 0 to 2 points. A zero in any scored question meant the application failed evaluation; questions were divided into two sections, where a minimum overall score for each section was needed. In order to achieve the minimum overall score, a score of 2 was needed for some but not all 2-point questions.

When an application was unable to achieve the minimum score for a section, clarifying questions (CQs) were sent to applicants for any questions where the maximum score was not achieved and providing opportunity for remediation.

Each application was evaluated in isolation, even though applicants may have submitted multiple, essentially identical applications. In addition, even for different applicants, many shared a common technical infrastructure, such as a Registry Service Provider (RSP) or common financial and organizational resources.

Technical and Operational: The Technical and Operational capability evaluation was one of the seven evaluation streams defined in the Applicant Guidebook (AGB), and one of three related to the applicant, as opposed to the string. The technical questions in the AGB gathered information from the applicant regarding its plans for operations so that the evaluation panel could assess whether the applicant demonstrated the technical and operational capability to run a TLD.

Questions 24 – 44 in the Applicant Guidebook (AGB) were related to Technical & Operational Capability.

- Questions #24 – 30 (a) were ‘External’. The applicant responses to these questions were published in an HTML file on the New gTLD Application Status microsite page.
- Questions #30 (b) – 44 were ‘Internal’. The response to these questions were assessed as part of the application evaluation, but the answers were not publicly posted.

[52] See: https://www.icann.org/resources/pages/registries/rsep/policy-en.

Financial: The financial questions in the AGB gathered information from the applicant regarding its plans for operations and financial planning so that the evaluation panel could assess whether the applicant demonstrated the financial capability to run a TLD.

Questions 45 – 50 in the AGB were related to Financial Capability and were 'Internal', not publicly posted.

Registry Services Evaluation: Served to evaluate each application's proposed registry services for any possible adverse impact to the security and stability of the DNS.

Clarifying Questions (CQs): Per the Applicant Guidebook: "As part of the evaluation process, evaluators may request clarification or additional information during the Initial Evaluation period. For each application, clarifying questions will be consolidated and sent to the applicant from each of the panels. The applicant will thus have an opportunity to clarify or supplement the application in those areas where a request is made by the evaluators."

Supplemental Notes on Technical/Operation and Financial Questions: Supplemental Notes were additional guidance published by ICANN to assist applicants in completing their applications. While they did not directly address CQs, these Supplemental Notes included clarifications on evaluation criteria for some questions in the application and could be used when responding to CQs. Supplemental Notes were published online through ICANN's original Customer Relations Management (CRM) tool; however, the links to these articles expired along with the license to the CRM. The ICANN org provided these resources on 17 April 2018[53], after the Work Track had already completed its preliminary deliberations. As such, the Work Track has not had an opportunity to review these additional resources and any deliberations/outcomes in this report would therefore not take them into account.

The Financial and Technical and Operational panels were Ernst & Young LLP, JAS Advisors, and KPMG LLP while the Registry Services Evaluation was conducted by Interisle Consulting Group.[54]

c. What are the preliminary recommendations and/or implementation guidelines?

The Work Track is considering recommending the following:

For all evaluations:

1. In pursuit of transparency, publish (during the procedure) any Clarifying Questions (CQ) and CQ responses for public questions to the extent possible.
2. Restrict scoring to a pass/fail scale (0-1 points only).

[53] See FAQs, Knowledge Articles, Reference Materials, and Supplemental Notes here: https://community.icann.org/x/gggFBQ

[54] See evaluation panels and process documentation here: https://newgtlds.icann.org/en/program-status/evaluation-panels

3. An analysis of CQs, guidance to the Applicant Guidebook, Knowledge Articles, Supplemental Notes, etc. from the 2012 Round need to be sufficiently analyzed with the goal of improving the clarity of all questions asked of applicants (and the answers expected of evaluators) such that the need for the issuance of Clarifying Questions is lessened.

For Technical and Operational Evaluation:

1. If an RSP Pre-approval program is established (as described in Section [1.2.6] of this Report), a new technical evaluation will not be required for Applicants that have either selected a "pre-approved" RSP in its application submission or if it commits to only using a pre-approved RSP during the Transition to Delegation phase.
2. Consolidate the technical evaluation across applications as much as feasible, even when not using a pre-approved RSP. For example, if there are multiple applications using the same non pre-approved RSP, that RSP would only have to be evaluated once as opposed to being evaluated for each individual application
3. For applicants that outsource technical or operational services to third parties, Applicants should specify which services are being performed by them and which are being performed by the third parties when answering questions.
4. Do not require a full IT/Operations security policy from applicants.
5. Retain the same questions (except Q30b - Security Policy).

In addition, the Work Track proposes the following draft language for consideration:

"Applicants must be able demonstrate their technical and operational capability to run a registry operation for the purpose that the applicant sets out, either by submitting it to evaluation at application time or agreeing to use a previously approved** infrastructure" ***(Could mean in the same procedure or previous procedures if an RSP program exists.)*

And

"The Technical and Operational Evaluation may be aggregated and/or consolidated to the maximum extent possible that generate process efficiencies, including instances both where multiple applications are submitted by the same applicant and multiple applications from different applicants share a common technical infrastructure."

For Financial Evaluation:

The Work Track considered several possible models for the financial evaluation and achieved a fair level of agreement on the following criteria:

1. To the extent that it is determined that a Continued Operations Instrument will be required, it should not be part of the Financial Evaluation, but rather should only be required at the time of executing a Registry Agreement..

2. Substitute the 2012 AGB evaluation of an applicant's proposed business models and financial strength with the following:
    a. An applicant must identify whether the financials in its application apply to all of its applications, a subset of them or a single one (where that applicant (and/or its affiliates have multiple applications).
    b. ICANN won't provide financial models or tools, but it will define goals and publish lists of RSPs, organisations (like RySG and BRG) and consultants.
    c. The goals of a financial evaluation are for the applicant to demonstrate financial wherewithal and assure long-term survivability of the registry. Therefore the evaluation should look at whether an applicant could withstand not achieving revenue goals, exceeding expenses, funding shortfalls or inability to manage multiple TLDs in the case of registries that are dependent upon the sale of registrations. However, there should also be a recognition that there will be proposed applications that will not be reliant on the sale of third party registrations and thus should not be subject to the same type of evaluation criteria. In other words, although the goals of the financial evaluation are to determine the financial wherewithal of an applicant to sustain the maintenance of a TLD, the criteria may be different for different types of registries. Criteria should not be established in a "one-size-fits-all" manner.
    d. If any of the following conditions are met, an applicant should be allowed to self-certify that it has the financial means to support its proposed business model associated with the TLD:
        i. If the Applicant is a company traded on an applicable national public market;
        ii. If the Applicant and/or its Officers are bound by law in its jurisdiction to represent financials accurately;
        iii. If the Applicant is a current Registry Operator that is not in default on any of its financial obligations under its applicable Registry Agreements, and has not previously triggered the utilization of its Continued Operations Instrument.
    e. The applicant is required to provide credible 3rd-party certification of those goals if self-certification above is not used or achievable.
3. To provide further clarity on the proposed financial evaluation model, the following are sample questions of how financials would be evaluated:
    a. Q45: "Identify whether this financial information is shared with another application(s)" (not scored).
    b. Q46: "Financial statements (audited, certified by officer with professional duty in applicant jurisdiction to represent financial information correctly or independently certified if not publicly-listed or current RO in good standing)" (0-1 scoring) (certification posted).
    c. Q47: "Declaration, certified by officer with professional duty in applicant jurisdiction to represent financial information correctly, independently certified if not publicly-listed or current RO in good standing, of financial planning meeting long-term survivability of registry considering stress conditions, such as not achieving revenue goals, exceeding expenses, funding shortfalls or spreading thin within current plus applied-for TLDs." (0-1 scoring) (publicly posted).

d. No other financial questions.

In addition, the Work Track proposes the following draft language for consideration:

"Applicants must be able to demonstrate their financial and organizational operational capability in tandem for all currently-owned and applied-for TLDs that would become part of a single registry family."

For Registry Services Evaluation:

1. Allow for a set of pre-approved services that don't require registry services evaluation as part of the new TLD application.; that set should include at least:
    a. Base contract required services (EPP, DNS publishing etc.)
    b. IDN services following IDN Guidelines
    c. BTAPPA ("Bulk Transfer After Partial Portfolio Acquisition")[55]
2. Since the content of "Registry Agreement Amendment Templates for Commonly Requested Registry Services" (https://www.icann.org/resources/pages/registry-agreement-amendment-templates-2018-01-29-en) satisfies the criteria above, referring to it instead of exahaustively enumerating the list is preferred. Applicants would inform which of the pre-approved services they want to be initially allowed in the registry agreement for that TLD.
3. The Registry Services Evaluation Process should only be used to assess services that are not pre-approved.
4. Criteria used to evaluate those non-preapproved Registry Services should be consistent with the criteria applied to existing registries that propose new Registry Services. To the extent possible, this may mean having the same personnel that currently reviews Registry Services for existing registries be the same personnel that reviews new Registry Services proposed by Applicants.
5. In order to not hinder innovation, applications proposing non-pre-approved services should not be required to pay a higher application fee, unless it is deemed as possibly creating a security or stability risk requiring an RSTEP (Registry Services Technical Evaluation Panel[56]). In addition, in order to encourage the proposal of innovative uses of TLDs, those proposing new non-approved registry services should not to the extent possible be unreasonably delayed in being evaluated.

In addition, the Work Track proposes the following draft language for consideration:

[55] It is important to note that this is NOT intended to say that evaluators should not evaluate an applicant's ability to perform these services; rather to say that these services should not be considered "additional registry services" and that those services do not cause security, stability or competition concerns.
[56] While the possible RSTEP fee was not discussed in Work Track deliberations, it was added to the Initial Report for the sake of completeness.

"Applicants will be allowed but not required to specify additional registry services. List of previously approved registry services (IDN Languages, GPML, BTAPPA) to be included by reference in AGB and contract. If applicant informs additional registry services, applicant will specify whether it wants it evaluated through RSEP at evaluation time, contracting time or after contract signing, acknowledging that exception processing in evaluation or contracting could incur additional application fees. If applicant has not informed additional registry services, RSEP will only be available after contract signing."

d. What are the options under consideration, along with the associated benefits / drawbacks?

None.

e. What specific questions are the PDP WG seeking feedback on?

- While a financial evaluation model reached general agreement, the Work Track is seeking feedback on an option with more complex evaluations that was proposed that would be specific to a scenario where there are already many commercial TLDs operating and a number of delegated but yet unlaunched ones. Please see the reasoning for this proposal on the Work Track Wiki[57] and of the model in the "Proposal - Straw Cookie-Monster"[58] section of the document.
- If it is recommended that a registry only be evaluated once despite submitting multiple applications, what are some potential drawbacks of consolidating those evaluations? How can those issues be mitigated?
- Which financial model seems preferable and why?
- Some in the Working Group have suggested that ICANN provide a list of persons or entities that could assist applicants in establishing a proposed business model. Should ICANN be allowed or even required to maintain such a list?
- The requirement to submit financial statements (especially with respect to non-public applicants that generally do not disclose financial information) was one of the main reasons applicants failed their initial evaluations in 2012. Although changes to financial evaluations are potentially being recommended, the Work Track is not suggesting changes to the requirement to submit financial statements. Are there any potential alternate ways in which an applicant's financial stability can be measured without the submission of financial statements? If so, what are they?.
- An alternative to the registry services evaluation was to not allow any services to be proposed at the time of application and instead to require all such services to be requested after contracting. What would be the pros and cons of that alternative?

[57] See relevant Wiki space here: https://community.icann.org/download/attachments/74587507/WT4-Christa-Financial-Evaluation%20.pdf?version=1&modificationDate=1515643713000&api=v2

[58] See models at the URL below. "Minimalist Model" was called "Straw Mushin", "Reduced Model" was called "Straw Bee", "Light-Weight Model" was called "Straw Beetle" and "Heavy-Weight Model" was called "Straw Cookie Monster" during discussions. https://community.icann.org/display/NGSPP/2018-01-11+New+gTLD+Subsequent+Procedures+PDP+Work+Track+4?preview=/74587507/77530200/WT4%20Straw%20Models.pdf

- Not adding cost and time to applications that propose new services likely increases cost and processing time for those applications that do not propose any additional Registry Services. In other words, it has been argued that applications without additional services being proposed are "subsidizing" applications which do propose new services. Do you see this as an issue?
- Are there any other Registry Services that should be considered as "pre-approved"? This could include services such as protected marks lists, registry locks, and other services previously approved by ICANN for other registries that have already gone through the RSEP process (https://www.icann.org/resources/pages/rsep-2014-02-19-en). Please explain.

f. Deliberations

As identified by the Final Issue Report and also through the Work Track's deliberations, a number concerns were highlighted that need to be addressed in the 2012 applicant review processes (i.e., Financial, Technical & Operational, and Registry Services). The goal in trying to solve these issues is to streamline the evaluation process, increase fairness, and increase transparency:

1. Excessive number of Clarifying Questions (CQs) were issued, indicating a lack of clarity in the questions, contradicting Recommendation 9.
2. Lack of transparency, as neither CQs nor CQ responses were published, even for public questions.
3. Non-uniform scoring, where some questions allowed 2 and one even allowed 3, which introduced uncertainty in the scoring process.
4. All applications were evaluated independently and individually, performing evaluation steps repeatedly for applications that were essentially identical, or shared the same Registry Service Provider (RSP).
5. Lack of correlation between projections and reality due to seeing every application as stand-alone.
6. Model bias (i.e., financial template) towards registries depending on revenue of selling domains.
7. Risk of non-isonomic evaluation of registry services (mitigated by adopting similar procedures).

All Evaluations:

Very early in its deliberations the Work Track noted that there were an excessive number of CQs, which indicated a lack of clarity in the questions. Via a series of inquiries, the Work Track sought data from the ICANN Global Domains Division to better understand the specific issues that may have led to the high number of CQs needed. Specifically, the Work Track requested:

1. The full text of clarification questions asked and answers for questions 24, 25, 26, 27, 28, 29, 30a; and

2. Identification of applications and per-application number of clarification questions asked and number of responses for ques<ons 30b, 31, 32, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49.

With respect to question 2, GDD staff extracted the numbers from ICANN's Program Implementation Review Report,[59] but noted difficulties with addressing question 1.[60] After further discussions, GDD staff identified several options to try and address the request, along with timing, resource, and budget implications.[61] The Work Track agreed to proceed with Option 1 (compiling existing resources), though it made clear that this did not preclude pursuing other options. The Work Track received the full package for Option 1 on 17 April 2017, after preliminary deliberations concluded. As such, consideration of that information is not fully taken into account at this stage. The Work Track notes that the CQs and CQ responses may have a limited relevance if the financial and technical questions are altered in a substantial manner.

After reviewing input from GDD and following its deliberations, there was support within the Work Track to recommend that ICANN publish (during the procedure) any CQs and CQ responses related to publicly published application responses.

In addition, the Work Track considered a recommendation on scoring it received from ICANN in a consultation relating to Registry Services Testing (RST).[62] Specifically, ICANN noted that during the 2012 round of the New gTLD Program, most question results were binary (0 or 1), but it was possible to earn 0, 1, or 2 points on some questions. This added complexity to the evaluation process with little benefit. ICANN recommended defining the criteria such that a passing score equates to the desired amount of capability to run a registry, and removing the option for 2 points. After considering the recommendation, the Work Track agreed to restrict scoring to 0-1 points only, with no section scores, and only pass/fail questions.

There was one question in the Community Comment 2 (CC2) relating to application evaluation in general: "What suggestions do you have for improving the application evaluation process that you would like the community to consider?" In its deliberations, the Work Track considered the responses to this question, which included recommendations to:

- Bundle applications and provide a written evaluation;

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[59] Ibid.
[60] For the full text of the response see: https://community.icann.org/download/attachments/58735969/ICANN%20Org%20Response%20to%20WT4%20Request%20for%20Clarifying%20Questions.pdf?version=1&modificationDate=1502939102000&api=v2.
[61] For the full text of the response see: https://community.icann.org/download/attachments/58735969/ICANN%20Org%20Response%20to%20WT4%20CQ%20Data%20Request.pdf?version=1&modificationDate=1517425699000&api=v2.
[62] See full response here: https://community.icann.org/download/attachments/58735969/Response%20to%20WT4%20re%20RST%20improvements.pdf?version=2&modificationDate=1502939084000&api=v2

- Provide more continuity in dealing with applications with the same registry to avoid repetition;
- Provide a continuous and rigorous vetting process for applicants;
- Provide a template for the Continued Operations Instrument (COI) that includes local legal and financial requirements; and
- Streamline, finalize, and publish the Pre-Delegation Testing (PDT) procedure prior to the applications procedures.

These suggestions were taken into account when debating and formulating the Work Track's general agreements.

There were also two questions in CC2 related to the timing of the evaluations for both Financial and Technical & Operational Capability. The question asked whether the evaluation could take place just prior to contracting and the responses trended towards maintaining what occurred in 2012, or in other words, capability was evaluated during the evaluation phase (i.e., Initial/Extended Evaluation).

Technical and Operational Evaluations:

In its deliberations, the Work Track considered the questions in the Applicant Guidebook (AGB) related to Technical & Operational Capability and noted that questions #24-44 were related as follows:

- Questions #24 – 30 (a) were 'External'. The applicant responses to these questions were published in an HTML file on the New gTLD Application Status microsite page.
- Questions #30 (b) – 44 were 'Internal'. The response to these questions were assessed as part of the application evaluation, but the answers were not publicly posted.

In CC2, there were three questions relating to Technical Evaluations: "Do you believe that technical evaluation should be done per application, per cluster of similar technical infrastructure of a single applicant entity/group, or per cluster of similar infrastructure among all applicants in a procedure (e.g, consolidate as much as possible)?" and "If consolidated, should the aggregate requirements of applied-for TLDs and currently operated TLDs be taken in consideration for evaluation?"

With respect to the first question, the Work Track noted that there was agreement among respondents to seek efficiencies and consistency by clustering applications to the extent possible. These efficiencies were seen to benefit both ICANN (and its evaluators) and applicants. With respect to the second question, the Work Track noted that there was general agreement for the evaluation to take into consideration the aggregate requirements of applied-for TLDs and currently operated TLDs. After deliberating on the CC2 responses, the Work Track agreed to recommend the consolidation of the technical evaluation among applications as much as feasible, even in the absence of an RSP Pre-Approval process or when not using a pre-approved RSP.

With respect to an RSP Pre-Approval process, if recommended by this PDP, the expectation is that the technical evaluation could be streamlined, with only certain elements evaluated on a per application basis.

Financial Evaluations:

In its deliberations, the Work Track considered the questions in the AGB related to Financial Capability and noted that questions #45-50 were related as follows:

> Questions #45 – 50 in the AGB were related to Financial Capability and were 'Internal', not publicly posted.

In its deliberations, the Work Track considered that it would be helpful to understand how many applications failed the financial evaluations in Initial Evaluation. The data showed that 25 applications failed financial evaluation criteria; of those 25, 3 also failed technical evaluation. Of those 3, 2 were multiple question failures (3 questions in one application, 5 questions in the other). The Work Track found that even when removing those 2 applications that had broad deficiencies (i.e., not just specific to the Financial Capability section), in Initial Evaluation:

- 18 applications failed Q45 (Financial statements);
- 3 applications (2 being open TLDs from the same applicant and 1 brand TLD), failed Q50 (Contingency planning); and
- 1 geographic TLD application failed Q48 (Funding and revenue).

In a related angle of analysis, the Work Track considered the number of CQs that were sent to applicants for the Financial questions. The statistics made available in the Program Implementation Review Report (PIRR)[63] showed that the questions related to the Financial Statements (Q45), Costs (Q47), Funding and Revenue (Q48), and especially the Continued Operations Interest (COI) (Q50) proved particularly challenging for applicants, where for instance, 82% of applications received CQs for Q50.

There was wide agreement within the Work Track, but also in the PIRR from ICANN org, that fundamental changes to the Financial Capability section should be considered. The financial evaluation process, though it did not evaluate business models, did rely upon projections from applicants, which drove consideration of funding and costs and the needs for the COI. The PIRR suggested that a third-party certification to attest to applicants' financial capability might still allow the program to meets its goals, while allowing for applicants to propose innovative business models. A third-party certifier might also be able to consider the application in the context of entire TLD portfolio.

In considering different ways to allow applicants to demonstrate their financial capability, the Work Track developed a number of different models. Those models are detailed below, in increasing levels of complexity.

[63] Ibid.

Minimalist Model:

- **Applicants will certify** that funding for at least the critical registry services will be available, even in worst-case scenarios.
- ICANN org will provide **sample financial spreadsheets of common registry models** (Brand TLDs, current registry operators adding additional open TLD, new registry operators applying for open TLDs, etc.) for applicants to make informed decisions before making such commitment.
- ICANN org will provide before the application process an initial non-exhaustive, but believed to be complete, list of **financial documentation that will be required for contracting**.

Possible advantages of this model include streamlining the process, likely reducing the application fee, reducing application evaluation time, increasing evaluation throughput, more easily providing fairness among applicants regarding application results reveal, and decreasing how many people would have access to sensitive information.

Possible disadvantages of this model include approving an application that may not meet requirements and be able to sign a contract, not disqualifying weak applications whose only goal was to obtain money in contention set resolution, and not being useful as cross-check of technical and registry services responses.

Precedents for self-assessment in other industries exist even when dealing with sensitive customer data, like Payment Card Industry (PCI) levels 2 to 4 SAQs (Self-Assessment Questionnaires).

Reduced Model:

- **Applicants will certify** that funding for at least the critical registry services will be available, even in worst-case scenarios.
- ICANN Org will provide **sample financial spreadsheets of common registry models** (Brand TLDs, current registry operators adding additional open TLD, new registry operators applying for open TLDs, etc.) for applicants to make informed decisions before making such commitment.
- Financial documentation, or justification for not having (e.g., newly incorporated company), will **be requested as part of the application process**.

When the Minimalist Model model was presented, there were some that found the model too simple. The most mentioned item was financial statements, so the compromise model would be to ask for financial statements, though not the financial model.

Compared to the Minimalist Model, this compromise retains most of the advantages, except for having more reviewers accessing somewhat sensitive information, such as financial statements. Besides eliminating companies unwilling to provide financial statements, it would carry similar disadvantages to the Minimalist Model.

Light-Weight Model:

- **Applicant will obtain credible third-party certification of the financial model** that funding for at least the critical registry services will be available, even in worst-case scenarios.
- ICANN org will provide **sample financial spreadsheets of common registry models** (Brand TLDs, current registry operators adding additional open TLD, new registry operators applying for open TLDs, etc.) for applicants to make informed decisions with guidance from their financial advisors before making such commitment.
- Financial documentation, or justification for not having (e.g., newly incorporated company), will **be requested as part of the application process**.

The primary difference between the Reduced Model and the Light-Weight Model above is that third-party certification is needed instead of self-certification.

Heavy-Weight Model:

This model would provide a traditional perspective that balances an applicant's ability to demonstrate their financial and operational capabilities, with the flexibility to use alternative financial models to ensure the applicant can meet the registry agreement terms.

Such an approach would utilize data gathered from the first round to yield insights that can support prudent business practices amongst new TLD applicants while better protecting against the most egregious TLD failures.

Key principles supported in this proposal include: strong financial and operational business practices; accountability on the part of TLD applicants and ICANN; continuous process improvement to better support subsequent TLD rounds.

Please note that discussion of the COI has been put aside for this proposal.

<u>Applications with No Expectation of Revenues</u>
Expenditure Template: Applications with no expectation of revenues such as brands should have a simplified template that reflects direct or increased costs related to the operation of a registry.

<u>Applications with Projected Revenues</u>
Reduce the rigidity of the financial projections by providing applicants with alternate methods to demonstrate their financial capabilities:

A. Basic Financial Templates: Utilization of financial projection templates as per the Applicant Guidebook
B. Custom Financial Templates: Flexibility to submit their own financial model – acknowledge this could be more cumbersome to review but providing the option would

be beneficial to all stakeholders. Allowing for the upload of Excel files should also be considered as it would assist in understanding the model.

C. Professional Endorsement: Endorsement from an accountant/auditor confirming the business model and resulting financial model have been evaluated and that the financial projections are aligned with the assumptions and knowledge. A sample letter outlining the expected structure and content should be provided in order to help streamline the process.

The above would provide additional flexibility in the different types of applications and evaluation methods while being receptive to innovative business models that would otherwise not fit in the standard template approach.

Stress-Test Tools

Make it easier for applicants to assess their financial projections by providing applicants with additional financial tools. Provision of an automated tool to stress-test their assumptions in a manner similar to an online mortgage calculator that utilizes registration volumes, prices etc. to evaluate the financial model. A simplified version could provide average volume of the top quartile registration volumes for the first three years in the high scenario, second quartile for the most likely scenario and third quartile for the low scenario (skipping over the fourth quartile). A more sophisticated tool could include additional data fields such as registration price per year, renewal rates and related fixed and variable costs. Furthermore, functions could be added that inform the applicant to any potential issues such as funding shortfalls with low registration volume with high expenses.

Consolidated View of Multiple Applications

Evaluate the entire applicant's risk by applying a holistic risk analysis to the portfolio of applications. This could be completed based on a high/med/low rate of success of delegating all of the applications and/or evaluating whether the sum of the parts is less than the whole i.e. is the risk lower if there are multiple TLDs.

Improved Guidance

Expand guidance by including additional areas to consider in the financial commentary, including:

- Addressing losses: Action plan if projected revenues are not met and/or expenses are exceeded.
- Addressing funding shortfalls: If the resulting financial model results in losses, demonstrating how the funding will be attained and paid-back.
- Applying checklists: Include checklists to assist applicants in the review of their application such as proposals/contracts for direct expenses (based on availability) such as back-end provider and escrow contracts/proposals.

Policy Outcomes

1. Minimize the financial risk of applicants and in turn, ICANN.

2. Ensure applicants have realistic expectations along with a better understanding of the financial obligations of owning and operating a registry.
3. Reduce the number of clarifying questions by providing suggestions on how to improve their applications based on financial results.

The approach also yields benefits to ICANN by ensuring quality applicants that meet the rigorous standards to operate a new gTLD for the long-term.

The model above that garnered the most support was the Light-Weight Model, though there was some desire to simplify and tweak some of the elements; *in seeking to do so, the Work Track developed the model available in section (c) above.*

Registry Services Evaluations:

In the event that the registry services proposed by the applicant did not raise significant stability or security issues, they primarily served as the source material for inclusion in the Registry Agreement, specifically Exhibit A. The Work Track anticipates that the list of pre-approved registry services will expand, based on the outcomes of already concluded Registry Services Evaluation Process (RSEP) instances.

The Work Track considered ways in which this might be streamlined. Some noted that with the implementation of an RSP Program, much of the technical evaluation, including registry services, would be minimized. To the extent the applicant is intending to customize either its technical implementation or the type or way in which it provides registry services, then those aspects should be reviewed individually.

Another idea the Work Track considered was to only allow the declaration of registry services through the RSEP, though only beginning at contracting time or thereafter. This proposal met resistance within the Work Track for at least a few reasons: 1) applicants may want to have assurance that their registry services are acceptable before the transition to delegation steps, 2) the community may want to provide input to proposed registry services, and 3) it may discourage innovation. The Work Track agreed that applicants should, at a minimum, be allowed to provide its registry services at application submission.

The Work Track generally agreed that improving the way in which an applicant could agree to pre-approved registry services would improve efficiency. The registry services evaluation process should not have to individually review every applicant's registry services, especially where the applicant is only using pre-approved registry services. A Work Track member suggested that the process could be separated, where applicants proposing no new registry services would be handled in one way, but those suggesting new registry services would be handled in parallel and in an efficient manner. The thought is that by ensuring efficient review of new registry services, applicants would be encouraged to innovate, but also provide them earlier in the process. Some noted that the current process is not too dissimilar to this suggestion (i.e., applicants may suggest new registry services at application submission and if

the evaluation panel determines that they might present a stability or security risk, RSEP could be required during Extended Evaluation). There was support for continuing to allow applicants to submit new registry services at application submission, or after delegation, as is the case currently, though some sought to make the declaration of registry services at application submission compulsory.

The Work Track also discussed whether the list of pre-approved registry services needed to be explicitly determined or could be noted via reference in the AGB and/or registry agreement. It was also suggested that pre-approved services could be listed, but new services would require detailed explanation.

g. Are there other activities in the community that may serve as a dependency or future input to this topic?

C. Registry Service Provider Program
D. Rights Protection Mechanisms PDP WG
E. Competition, Consumer Choice, and Consumer Trust Review Team

1.7.8 Name Collisions

a. What is the relevant policy and/or implementation guidance (if any)?

Recommendation 4: "Strings must not cause any technical instability."

b. How was it implemented in the 2012 round of the New gTLD Program?

Although at the tie of the New gTLD Program launch there were no mechanisms addressing name collisions in place, in 2010 the Security and Stability Advisory Committee (SSAC) released SSAC 045[64], which among other things, recommended that "ICANN promote a general awareness of the potential problems that may occur when a query for a TLD string that has historically resulted in a negative response begins to resolve to a new TLD." Though these recommendations were made by the SSAC, there were no other measures taken prior to the acceptance of new gTLD applications.

However, after program launch, work was undertaken to establish a framework to handle name collisions. On 7 October 2013, the New gTLD Collision Occurrence Management[65] framework was adopted by the ICANN Board for implementation by ICANN Org. The framework was intended to address potential issues arising from name collisions, including systems disruption,

[64] https://www.icann.org/en/system/files/files/sac-045-en.pdf
[65] See framework here: http://www.icann.org/en/groups/board/documents/resolutions-new-gtld-annex-1-07oct13-en.pdf

SSL certificate hijacking, and alleged potential risks to human life. An extended period between contracting and delegation was established to make SSL certificate providers aware that new TLDs were going to be delegated to ensure revocation of existing SSL certs with the new TLD string as TLD in the cert, and while a final framework was being developed by advisors to ICANN, ICANN allowed some applicants to proceed to launch their TLDs provided they agree to implement a mechanism called the "Alternate Path to Delegation (APD)." This involved requiring all Registry Operators to block all second-level domains (SLDs) that incidentally appeared in a sample set of data of queries to the root zone (called the "Day in the Life of the Internet" (DITL) initiative) This required many registries to block the registration of thousands, and in some cases hundreds of thousands, of second level domains.

The final Name Collision Management Framework[66] framework was released in July 2014. This new framework allowed registries that were delegated after the release of the final framework to implement the existing APD or to introduce a wildcard in the whole zone for the first 90 days after delegation, where end-users were taken to an unintended Web page or encountered an error message. This warning mechanism, called "controlled interruption," required that system administrators be alerted that in the event they were directing queries to that newly delegated TLD, there may be an issue in their network; "controlled interruption" had to last for a period of at least 90 days and got its name from its intended design of making end-users and systems administrators aware of the problem without risking that these unintended queries to the newly existing TLDs were not inadvertently misappropriated by the registry operator or any of its registrants..

c. What are the preliminary recommendations and/or implementation guidelines?

The Work Track developed the following preliminary recommendations:

- Include a mechanism to evaluate the risk of name collisions in the TLD evaluation process as well during the transition to delegation phase.
- Use data-driven methodologies using trusted research-accessible data sources like DITL and ORDINAL.
- Efforts should be undertaken to create a "Do Not apply" list of TLD strings that pose a substantial name collision risk whereby application for such strings would not be allowed to be submitted.
- In addition, a second list of TLDs should be created (if possible) of strings that may not pose as high of a name collision risk as the "Do Not apply" list, but for which there would be a strong presumption that a specific mitigation framework would be required.
- Allow every application, other than those on the Do Not Apply list, to file a name collision mitigation framework with their application.
- During the evaluation period, a test should be developed to evaluate the name collision risk for every applied-for string, putting them into 3 baskets: high risk, aggravated risk,

[66] See final framework here: https://www.icann.org/en/system/files/files/name-collision-framework-30jul14-en.pdf

and low risk. Provide clear guidance to applicants in advance for what constitutes high risk, aggravated risk, and low risk.

- High risk strings would not be allowed to proceed and would be eligible for some form of a refund.
- Aggravated risk strings would require a non-standard mitigation framework to move forward in the process; the proposed framework would be evaluated by an RSTEP panel.
- Low risk strings would start controlled interruption as soon as such finding is reached, recommended to be done by ICANN Org for a minimum period of 90 days (but likely more considering the typical timeline for evaluation, contracting and delegation).
- If controlled interruption (CI) for a specific label is found to cause disruption, ICANN Org could decide to disable CI for that label while the disruption is fixed, provided that the minimum CI period still applied to that string.

d. What are the options under consideration, along with the associated benefits / drawbacks?

None

e. What specific questions are the PDP WG seeking feedback on?

- Is there a dependency between the findings from this WG and the Name Collisions Analysis Project (NCAP)? If there is, how should the PDP WG and NCAP Work Party collaborate in order to move forward? Or, should the PDP WG defer all name collision recommendations to NCAP ?
- In the event that the NCAP work is not completed prior to the next application round, should the default be that the same name collision mitigation frameworks in place today be applied to those TLDs approved for the next round?
- The Work Track generally agreed to keep the Controlled Interruption period at 90 days due to lack of consensus in changing it. Some evidence indicated a 60-day period would be enough. Though no evidence was provided to require a longer period, other work track members argued for a longer 120 days. What length do you suggest and
- why? Note that the preliminary recommendation to have ICANN Org conduct CI as early as possible would likely mitigate potential delays to applicants in launching their TLD.
- During the first 2 years following delegation of a new gTLD string, registry operators were required to implement a readiness program ensuring that certain actions be taken within a couple of hours in the event that a collision was found which presented a substantial risk to life. The 2-year readiness for possible collisions was kept as determined in the Name Collision Management Framework, but some in the Work Track felt that the service level for 2012 was too demanding. What would be a reasonable response time?
- If ICANN were initially required to initially delegate strings to its own controlled interruption platform and then later delegate the TLD to the registry, would that unreasonably increase the changes to the root zone?

- What threat vectors for name collisions in legacy gTLDs should the WG consider, and what mitigation controls (if any) can be used to address such threats ?

f. Deliberations

As a starting point for the Work Track's deliberations, it compiled and considered a set of existing resources, such as reports from Interisle Consulting Group[67] and JAS Advisors[68]. The Work Track also reviewed several SSAC reports that focused on name collisions, including SAC045[69], SAC057[70], SAC062[71], and SAC066[72].

During its deliberations the Work Track identified the following issues:

- APD lists included a number of desirable terms and trademarks to be only available after the launch cycle of the TLD, interacting badly with launch programs, marketing initiatives and RPMs.
- The after-the-fact nature of establishing the framework severely impacted time-to-market of approved TLDs.
- Late start of controlled interruption added to more delays.
- The Work Track has not reached an agreement on TLDs with a higher than usual risk level (.home, .corp and .mail).
- Some TLDs contradicted the framework by having both wildcard controlled interruption and delegated domain names.
- Risks were overplayed by some actors and downplayed by others, making it harder for the ICANN Organization to choose an accepted risk level.
- Some side effects of controlled interruption for specific SLDs required disabling controlled interruption for the whole TLD.

The Work Track noted that some features were already changed during the 2012 process. For example, APD stopped being used, and the Work Track supports that change. However, the Work Track notes that time-to-market and predictability issues are still present, and suggests the need for changes. The Work Track reached out to Jeff Schmidt of JAS Advisors in May of 2017, asking:

- What general guidance for namespace collisions would you like the community to consider for the next application process, and why?

[67] See Interisle report here: https://www.icann.org/en/system/files/files/name-collision-02aug13-en.pdf
[68] See JAS report here: https://www.icann.org/en/system/files/files/name-collision-mitigation-final-28oct15-en.pdf
[69] See SAC045 here: https://www.icann.org/en/system/files/files/sac-045-en.pdf
[70] See SAC057 here: https://www.icann.org/en/system/files/files/sac-057-en.pdf
[71] See SAC062 here: https://www.icann.org/en/system/files/files/sac-062-en.pdf
[72] See SAC066 here: https://www.icann.org/en/system/files/files/sac-066-en.pdf

- Were there non-applied for strings that would fall into a high risk profile that would be suggested to not be allowed for the time being in subsequent new gTLD procedures ? Which ones?
- What data sources could/should be used for analyzing namespace collisions for subsequent procedures?
- Based on experience from the 2012 round, can the controlled interruption period be reduced in future procedures, if controlled interruption is suggested to be used?

Mr. Schmidt provided response[73], stating that the approach taken for Controlled Interruption seemed effective and that he would not change anything.

On legacy and 2012 gTLDs, the Work Track reached consensus on keeping the procedures for 2012-round gTLDs as they are. With respect to subsequent procedures the Work Track reached consensus on:

- Expanding 2012 Framework with categorization of low, aggravated, and high risk, on elaborating "do not apply" and "exercise care" lists;
- Keeping readiness requirement for life-threatening collisions; and
- For low-risk strings, on starting controlled interruption as soon as possible and delegate execution to ICANN.

The Work Track notes that the following issues are still pending further deliberations and input:

- Discussions on name collisions in legacy gTLDs;
- Guidelines, or guidance to make guidelines, for categorization and list-creation, including possible applicant opinion and collision framework;
- Definition of a Service Level Agreement (SLA) for collision readiness; and
- Interaction with Board-requested SSAC guidance.

In its deliberations the Work Track reviewed the responses received from the Community Consultation 2 (CC2). Specifically, JAS Advisors and the ALAC recommended not changing the status quo. In addition, JAS Advisors suggested looking into SLD-name collisions (notifications), considering variations of 2012 problematic strings, and using Day in the Life (DITL) and ORDINAL datasets.

The SSAC, in its advice (see below), suggested creating a "do not apply" list and an "exercise care" list, to consider what to do with previously delegated TLDs, identify private namespaces, and coordinate with IETF on special-use domain names.

The International Trademark Association (INTA) suggested avoiding APD-type lists, but if these are used they should not contain trademarks.

[73] See email response here: https://mm.icann.org/pipermail/gnso-newgtld-wg-wt4/2017-June/000079.html

The Registry Stakeholder Group noted the lack of predictability, but that there was no need to extend the two-year, two-hour readiness. It also suggesting reducing the controlled-interruption period to 60 days and to assess risk instead of just quantity of collisions.

Thomsen Trampedach suggested initiating the controlled interruption period sooner rather than later.

Finally, the ICANN Office of the Chief Technology Officer suggested reaching out to other technical organizations. Subsequently, the Work Track reached out to the lists for the DNS Operations, Analysis, and Research Center (*DNS-OARC*), the Regional Internet Registry for Europe (RIPE), and the Internet Engineering Task Force (IETF) to request input, although no formal input was forthcoming.

Also in it deliberations the Work Track considered input from several sources, in addition to the CC2 responses. First, it reviewed the Security and Stability Advisory Committee (SSAC) advice on Name Collisions: SAC090 -- SSAC Advisory on the Stability of the Domain Namespace (22 December 2016) and SAC94 -- SSAC Response to the Request for Advice Relating to the 2012 New gTLD Round (22 May 2017). The Work Track also met with Patrik Fältström, the Chair of the SSAC, who provided a detailed presentation on the SSAC's advice.

Second, it reviewed the report by JAS Advisors on Mitigating the Risk of DNS Namespace Collisions and posed the following questions to JAS (via the ICANN Organization):

> "What general guidance for namespace collisions would you like the community to consider for the next round, and why?"
>
> "Among the 3 strings not recommended to move forward (.home, .corp and .mail), we can classify them in two groups: ones without much dotless queries (.home and .corp) and one with prevalence of dotless queries (.mail). Considering dotless operation is forbidden in gTLDs, could you clarify why the later group presented a collision risk as well? What, if any, circumstances strings belonging to those two risk profiles could be released under?"
>
> "Were there non-applied for strings that would fall into one of those two risk profiles that would be suggested to not be allowed for the time being in subsequent new gTLD procedures? If Answered 'Yes' above, which ones shouldn't be allowed?"
>
> "What data sources could/should be used for analyzing namespace collisions for subsequent procedures?"
>
> "Based on data from the first round, can the controlled interruption period be reduced in future rounds?"

"Are there any existing studies out there that examine the effectiveness of the existing mitigation strategies in place?"

Also, concerning the name collisions that have been reported, the Work Track sought high level data to help understand if the reported issues might pose a problem, even if they don't meet the high bar of imminent harm to human life. The following data elements were requested:

- Date of report to ICANN;
- Type of TLD where the collision occurred (Single-registrant, Brand, Geo, IDN, Open/Generic, Open/Niche);
- When and how reporting person detected the collision;
- Affected system (Corporate network, Mobile Application, Web Application, Other-Specify);
- Registry response (If available); and
- Outcome (to the best of ICANN's knowledge).

See the ICANN Organization's response here: https://community.icann.org/x/Yz2AAw.

In a follow-up question to the ICANN Organization, the Work Track asked, "In the cases that were listed as 'Registry not contacted' was that due to ICANN's decision that such a contact was not warranted, or was it due to reporter request for non-disclosure?" GDD Technical Services responded: "The reason is either: 1) the ICANN organization determined that contacting the registry was not necessary given that the reporter was able to fix the issue(s) in their network relatively quickly; or 2) the reporter did not respond when asked if they approved ICANN to put them in contact with the registry."

The Work Track also reached out to ICANN Compliance concerning name collisions. Specifically, it noted that in the April-June Contractual Compliance quarterly update (https://www.icann.org/en/system/files/files/compliance-update-jun17-en.pdf) that at the end of page 3, it states: "This quarter, the ICANN Contractual Compliance team also processed referrals from ICANN Technical Services regarding controlled interruption wildcard record violations. Approximately 45 TLDs were found to have activated names (other than nic.tld) in the DNS, while controlled interruption wildcard records continued to exist in their zone file." The Work Track noted that it seemed to be a high number of TLDs that are still having issues with the 2012-round Name Collision Framework, long after delegation. It further noted that this specific data point suggests that one of the suggested modifications -- having ICANN or an ICANN contractor run the process before the TLD is delegated to the approved applicant -- would not only address the time-to-market problem seen by registries but also improve compliance with the framework as designed. Accordingly, the Work Track asked ICANN Contractual Compliance to provide additional data to help them determine what the breakdown is for RSPs amongst the 45 TLDs (while not seeking the names of RSPs or ROs, but a count per RSP). The ICANN Compliance Response can be found here: https://community.icann.org/x/Yz2AAw.

Outreach efforts were also done through the DNS-OARC (DNS Operations, Analysis, and Research Center) mailing list and OARC 28 meeting, as well as the IETF DNSOP and RIPE DNS WG mailing lists. As of the drafting of this report, no feedback from those efforts has been received.

g. Are there other activities in the community that may serve as a dependency or future input to this topic?

- NCAP (Name Collisions Analysis Project)
- IETF special TLDs initiative