

17 November 2021

Subject:SSAC2021-09: SSAC Response to IDN EPDP – Request for Early InputTo:Donna Austin, IDN EPDP Chair

From: Rod Rasmussen, SSAC Chair

The SSAC appreciates the request for early input for this Expedited Policy Development Process (EPDP) on Internationalized Domain names (IDNs) and views it as a good opportunity to gather critical information as your work gets underway. The SSAC has reviewed the Questions for Community Input Document from the GNSO Expedited Policy Development Process on Internationalized Domain Names.

First, the SSAC considers the following SSAC advice on IDNs to be current and relevant for the IDN EPDP's discussion. These are:

- [SAC052]: SSAC Advisory on Single-Character Internationalized Domain Name Top-Level Domains
- [SAC060]: SSAC Comment on Examining the User Experience Implications of Active Variant TLDs Report
- Section 2 of [SAC084]: SSAC Comments on Guidelines for the Extended Process Similarity Review Panel for the IDN ccTLD Fast Track Process.

The SSAC encourages the IDN EPDP Work Party to review these SSAC reports and consider incorporating them into its IDN EPDP Work. The SSAC is available to meet with the IDN EPDP Working Group to further discuss its advice and answer any questions the EPDP Working Group may have. We strongly encourage having such a dialogue soon to discuss important technical issues that could impact the work contemplated in this EPDP.

In addition to the information above, the SSAC wishes to emphasize that currently there is no DNS protocol solution that enforces equivalence (or the same behavior) of variants in the DNS. Policy makers need to understand this crucial limitation, so as not to design policies that attempt to force such equivalence.

Finally, please also see below some thoughts from SSAC members on the EPDP team's specific questions. These responses do *not* represent consensus SSAC input to the topic and should be considered as input from individual SSAC members. We share these individuals' remarks in the hope to provide advice from subject matter experts during your information gathering phase.

Rod Rasmussen Chair, ICANN Security and Stability Advisory Committee

TLD Label Validation and Variant Label(s) Calculation

A. Consistent definition and technical utilization of RZ-LGR:

The Charter recognizes that RZ-LGR related recommendations that the following questions seek to address were developed with the aim to achieve the security and usability goals for variant labels in a stable manner and were designed to be conservative, with the view that the IDN variant TLDs are being implemented for the first time.

a1) Evaluating all TLDs using RZ-LGR as the one and only authoritative source allows for a consistent approach for reviewing current and future TLDs. The SubPro PDP, the Staff Paper, and the Study Group on Technical Use of RZ-LGR ("TSG") recommend that compliance with RZ-LGR (RZ-LGR-4, and any future RZ-LGR versions) must be required for the validation of all future gTLDs (including IDN and ASCII labels) and the calculation of their variant labels as a matter of policy, including the determination of whether the disposition of the label should be blocked or allocatable.¹

For existing delegated gTLD labels, does the WG recommend using the RZ-LGR as the sole source to calculate the variant labels and disposition values?

Response: In SAC60, the SSAC recommends that: "The root zone must use one and only one set of rules for the Root LGR procedure." (SAC060 Recommendation 1) The recommendation applies to all future TLDs (gTLDs and ccTLDs) as well as for existing delegated TLD labels.

a2) Before the proposed RZ-LGR mechanism, applications for IDN gTLDs have asked the applicant to identify and list any variant labels (based on their own calculations) corresponding to the applied-for string. The self-identified "variant" labels do not have legal standing, as "[d]eclaring variant strings is informative only and will not imply any right or claim to the declared variant strings."² The TSG recommends that the self-identified "variant" labels which are also variant labels calculated by RZ-LGR will need to be assigned a variant disposition based on RZ-LGR calculation, as discussed in **a1)**.

If some self-identified "variant" TLD labels by the former gTLD applicants are not found consistent with the calculation of the RZ-LGR, but have been used to certain extent (e.g., used to determine string contention sets), how should such labels be addressed in

¹ See Recommendation 25.2 and Implementation Guidance 26.10 in the SubPro Final Report, pp.115, 119: <u>https://gnso.icann.org/sites/default/files/file/file-file-attach/final-report-newgtld-subsequent-procedures-pdp-02feb21-en.pdf#page=115;</u> Recommendation 1 in the Staff Paper, p.3: <u>https://www.icann.org/en/system/files/files/idn-variant-tld-recommendations-analysis-25jan19-en.pdf#page=3;</u> Recommendation 1 in the TSG report, p.5: https://www.icann.org/en/system/files/files/rz-lgr-technical-utilization-recs-07oct19-en.pdf#page=5

² For more details see *gTLD Applicant Guidebook*, version 2012-06-04, section 1.3.3 IDN Variant TLDs, p.1-35: https://newgtlds.icann.org/en/applicants/agb/guidebook-full-04jun12-en.pdf

order to conform to the LGR Procedure and RZ-LGR calculations?

Consider this question by taking into account the data to be collected in the "Data and Metric Requirements" section of this charter.

Response: An analysis of the delegated variant labels in ccTLDs against the most current version of LGR would answer whether this is a hypothetical question or not. If such a case did happen, the policy would need to balance (1) the user experience of existing users with variant domains, (2) the stability of rules applying to the root zone. It would seem the likely course of action is for applicants to make an appeal to the generation or integration panel with all the evidence.

a3) SubPro PDP recommends that ICANN establish a mechanism that allows specific parties to challenge or appeal certain types of actions or inactions that appear to be inconsistent with the Applicant Guidebook.³ SubPro PDP recommends that such a limited challenge/appeal mechanism applies to several types of evaluations and formal objections decisions, including the DNS Stability aspect of evaluation/challenge procedures. Previously, both the SSAC and TSG also recommended a challenge process for resolving disagreement with the RZ-LGR calculation on certain strings.⁴

If an applied-for TLD label, whose script is supported by the RZ-LGR, is determined to be "invalid", is there a reason NOT to use the evaluation challenge processes recommended by SubPro? If so, rationale must be clearly stated. If SubPro's recommendation on the evaluation challenge process should be used, what are the criteria for filing such a challenge? Should any additional specific implementation guidance be provided, especially pertaining to the challenge to the LGR calculation as it can have a profound, decimating impact on the use of RZ-LGR?⁵

a4) For future gTLD applications, the SubPro PDP proposes an implementation guidance that if a script is not yet integrated into the RZ-LGR, applicants should be able to apply for a string in that script, and it should be processed up to but not including contracting.⁶ Applicants under such circumstances should be warned of the possibility that the applied-for string may never be delegated and they will be responsible for any additional evaluation costs. The burden in this case is on the applicant, who may have to

³ See Recommendation 32.1 in the SubPro Final Report, pp.154-155: <u>https://gnso.icann.org/sites/default/files/file/field-file-attach/final-report-newgtld-subsequent-procedures-pdp-02feb21-en.pdf#page=154</u>

⁴ Disagreement with the LGR calculator may arise due to circumstances including but not limited to: an invalid label due to choice of "letter" not included in the repertoire, albeit being IDNA2008 protocol-valid; an invalid label due to a contextual or whole label evaluation rule imposed by either integration or generation panels' variant; labels differ because of different assumptions. SAC060 proposed a straw man process to resolve disputes to the RZ-LGR results. The TSG recommended several technical inputs be considered when developing the resolution mechanism. See Recommendation 2, SAC060, p.9: <u>https://www.icann.org/en/system/files/files/sac-060-en.pdf#page=9;</u> see Recommendation 4 in the TSG Report, pp.6-7: <u>https://www.icann.org/en/system/files/files/rz-lgr-technical-utilization-recs-07oct19-en.pdf#page=6</u>

⁵ Any changes in RZ-LGR brought about by a process outside the LGR Procedure would invalidate the RZ-LGR and thus the definition of the variant TLD, as stated in the LGR Procedure. TSG suggests how to address such a challenge by remaining within the LGR Procedure.

⁶ See Implementation Guidance 25.3 in the SubPro Final Report, p.115: <u>https://gnso.icann.org/sites/default/files/file/file-attach/final-report-newgtld-subsequent-procedures-pdp-02feb21-en.pdf#page=115</u>

wait for an indeterminate amount of time but is not aware of any other serious concerns. The SubPro PDP developed this implementation guidance by taking into consideration the TSG recommendation that the application should remain on-hold (or other appropriate status) until the relevant script is integrated into the RZ-LGR.⁷

The WG and the SubPro IRT to coordinate and consider the following questions in order to develop a consistent solution: should the SubPro recommendation be extended to existing TLDs that apply for a variant TLD label whose script is not yet supported by the applicable version of the RZ-LGR? Consider this question in tandem with **b4**) and by taking into account the data to be collected in the "Data and Metric Requirements" section of this charter. If not, what should be the process for an existing TLD registry who wishes to apply for a variant TLD label whose script is not yet supported by the applicable version of the RZ-LGR?

Response: To support the deployment of IDNs, as long as the codepoints are allowed by IDNA, there is no reason to prohibit the application. However, any variant would not be allowed until the script is integrated into LGR.

a5) SAC060 notes that variant code points in LGR may introduce a "permutation issue", possibly creating a large number of variant domain names, which "presents challenges for the management of variant domains at the registry, the registrar and registrant levels."⁸ SAC060 advises that "ICANN should ensure that the number of strings that are activated is as small as possible." The TSG agreed with this SSAC advice.⁹ Appendix C of the Staff Paper reviewed the factors causing numerous variant labels and suggested measures to address this issue.¹⁰

Should there be a ceiling value or other mechanism to ensure that the number of delegated top-level variant labels remains small, understanding that variant labels in the second level may compound the situation? Should additional security and stability guidelines be developed to make variant domains manageable at the registry, registrar, and registrant levels?¹¹

⁷ It is important to recognize that the RZ-LGR can be updated to include additional scripts as long as it is done in compliance with the LGR Procedure. The practical limitation, however, is that the time to create an LGR script proposal varies greatly (i.e. months or years). See Recommendation 5 in the TSG report, p.7: https://www.icann.org/en/system/files/rz-lgr-technical-utilization-recs-07oct19-en.pdf#page=7; for additional context and rationale, see Appendix A of the Recommendations for Technical Utilization of RZ-LGR, pp.11-12: https://www.icann.org/en/system/files/riles/rz-lgr-technical-utilization-recs-07oct19-en.pdf#page=7; for additional context and rationale, see Appendix A of the Recommendations for Technical Utilization of RZ-LGR, pp.11-12: https://www.icann.org/en/system/files/files/rz-lgr-technical-utilization-recs-07oct19-en.pdf#page=11

⁸ See Recommendation 14, SAC060, p. 20: <u>https://www.icann.org/en/system/files/files/sac-060-en.pdf#page=20</u>

⁹ See Recommendation 6 in the TSG report, p.7: <u>https://www.icann.org/en/system/files/files/rz-lgr-technical-utilization-recs-07oct19-en.pdf#page=7</u>

¹⁰ See Appendix C of the IDN Variant TLD Implementation: Appendices, pp. 12-29: https://www.icann.org/en/system/files/files/idn-variant-tld-appendices-25jan19-en.pdf#page=12

¹¹ One of the security and stability concerns is that some scripts can generate large numbers of variants based on the way the LGR works. The RZ-LGR Procedure manages such numbers by minimizing allocatable variant labels and maximizing blocked variant labels. However, though this approach is optimal in most cases, the outcome may be worse for a specific label in some cases.

Response: Yes, there should be a mechanism to ensure that the number of delegated top-level variant labels remains small. Unless there is demonstrated widespread usage of the variant label, the variant label should not be activated.

a6) Since RZ-LGR can be updated over time, the WG needs to consider the implications for existing TLD labels and their variant labels (if any), including any potential changing of status or disposition value.¹²

The TSG further recommends that the Generation Panel (GP) must call out the exception where an existing TLD is not validated by their proposed solution during the public comment period and explain the analysis and reasons for not supporting the existing TLD in their script LGR proposal.¹³ This will allow the community and the GP to review such a case to confirm that an exception is indeed warranted.

Does the WG agree with TSG's suggested approach? If so, to what extent should the TLD policies and procedures be updated to allow an existing TLD and its variants (if any), which are not validated by a script LGR, to be grandfathered? If not, what is the recommended approach to address changes to the current version of the RZ-LGR that assign different disposition values to existing TLDs? Consider this question by taking into account the data to be collected in the "Data and Metric Requirements" section of this charter.

Response: Data is needed here. Also see answers to question a2 above.

a7) The SubPro PDP recommends that single character gTLDs may be allowed for limited script/language combinations where a character is an ideograph (or ideogram) and do not introduce confusion risks that rise above commonplace similarities, consistent with SAC052 and Joint ccNSO-GNSO IDN Workgroup (JIG) report.¹⁴

What mechanism or criteria should be used to identify the scripts/languages appropriate for single-character TLDs? Once those scripts/languages are identified, what mechanism or criteria should be used to identify a specific list of allowable characters which can be used as a single-character TLD within such scripts/languages? Should any specific implementation guidance be provided? Furthermore, should the relevant GP tag

¹² See Recommendation 7 in the TSG report, p.8: <u>https://www.icann.org/en/system/files/files/rz-lgr-technical-utilization-recs-07oct19-en.pdf#page=8</u>

¹³ See Recommendation 12 in the TSG report, p.9: <u>https://www.icann.org/en/system/files/files/rz-lgr-technical-utilization-recs-07oct19-en.pdf#page=9</u>

¹⁴ See Recommendation 25.4 in the SubPro PDP Final Report,

p.115:<u>https://gnso.icann.org/sites/default/files/file/file/file-attach/final-report-newgtld-subsequent-procedures-pdp-02feb21-en.pdf#page=115;</u> Recommendation 1 in SAC052, p.8: <u>https://www.icann.org/en/system/files/files/sac-052-en.pdf#page=8</u>; the SubPro PDP does not believe it has the relevant expertise to make this determination and would welcome the identification of the limited set of scripts and languages and potentially a specific list of allowable single-characters (e.g., during implementation), which will substantially increase the predictability of what will likely still remain a case-by-case, manual process. See Rationale for Recommendation 25.4 in the SubPro PDP Final Report, pp.116-117: <u>https://gnso.icann.org/sites/default/files/file/file/attach/final-report-newgtld-subsequent-procedures-pdp-02feb21-en.pdf#page=116</u>

these code points in the RZ-LGR for a consistent analysis and to ease their identification and algorithmic calculation?¹⁵

Response: SAC052 Recommendation 1 is still valid.

a8) What additional aspects of gTLD policies and procedures, which are not considered in the above charter questions, need to be updated to ensure that the validation of existing TLD labels and calculation of variant labels depend exclusively on the RZ-LGR in a consistent manner?

a9) A given label in an Internationalized Domain Label (IDL) set may be in one of the following non-exhaustive status: delegated, withheld-same-entity, blocked, allocated, rejected. The WG and the SubPro IRT to coordinate and develop a consistent definition of variant label status in the IDL set.

a10) Individual labels in an IDL set may go through the following possible status transformations:

- from "withheld-same-entity" to "allocated": Allocation only to the same entity as another label in the IDL set. This change happens if a variant was not initially requested for allocation and later is. Allocating withheld labels would be the application process for a variant TLD.
- from "blocked" to "withheld-same-entity": A later LGR may broaden the available labels in the IDL set. Such possible labels automatically become withheld-same-entity.
- from "allocated" to "delegated": Happens when name servers are added. (Not new.)
- from "delegated" to "allocated": If a domain is removed from the DNS, the allocation can remain in place anyway. Rare in the root zone, but not new.
- from "rejected" to "withheld-same-entity": Every Rejected label is automatically Withheld-same-entity as well. If the Rejected status comes off, the label can be handled as any other Withheld-same-entity label.

Note that an allocated or withheld-same-entity label cannot become blocked unless a new version of the LGR makes this possible.

The WG and the SubPro IRT to coordinate and consider the following questions in order to develop a consistent solution: what is the procedure to change the label status for individual variant labels?

Response: As noted in SAC062, "ICANN should ensure that the number of strings that are activated is as small as possible."

IDN Variant TLD Management

B. "Same entity" at the top-level

¹⁵ See Annex B of the Recommendations for the Technical Utilization of the RZ-LGR, p.13: <u>https://www.icann.org/en/system/files/files/rz-lgr-technical-utilization-recs-07oct19-en.pdf#page=13</u>

b1) Both the SubPro PDP and the Staff Paper recommend that variant TLDs that ICANN delegates must have the "same entity" as the sponsoring organization and the "Registry Operator" be used as the definition of the "same entity" at the top-level.¹⁶

Should this recommendation be extended to existing TLDs?

Response: Yes.

b2) Both the SubPro PDP and the Staff Paper recommend that variant TLDs be operated by the same back-end registry service provider, the organization providing one or more registry services (e.g., DNS, DNSSEC, RDDS, EPP) for a registry operator.¹⁷

Should this recommendation be extended to existing TLDs and their variant TLD labels?

Response: Yes.

b3) Beyond having the same Registry Operator and same back-end registry service provider, as referenced in b1) and b2), is there a need for additional constraints for the same entity requirement for the top-level ?¹⁸ If so, the rationale must be clearly stated.

Response: We wish to emphasize that currently there is no DNS protocol solution that enforces equivalence (or the same behavior) of variants in the DNS. Policy makers need to understand this crucial limitation, so as not to design policies that attempt to force such equivalence. So in essence, although administratively these domains are considered a package, technically speaking, they are different domain names.

b4) The policy recommendation advises that variant TLD labels be allocated to the same entity, however a process to apply for a variant TLD does not exist. The WG and the SubPro IRT to coordinate and consider the following questions in order to develop a consistent solution: what should an application process look like in terms of timing and sequence for an existing and future Registry Operator with respect to applying or activating their allocatable variant TLD labels?

b4a) For the variant labels with status "withheld for the same entity" (i.e. not requested for allocation in the application process), what role do they play?

https://www.icann.org/en/system/files/files/idn-variant-tld-recommendations-analysis-25jan19-en.pdf#page=6 ¹⁷ See Recommendation 25.5 in the SubPro PDP Final Report, p.115:

¹⁶ See Recommendation 25.5 in the SubPro PDP Final Report, p.115:

https://gnso.icann.org/sites/default/files/file/field-file-attach/final-report-newgtld-subsequent-procedures-pdp-02feb21en.pdf#page=115; Recommendation 2 in the Staff Paper, p.3: https://www.icann.org/en/system/files/files/idn-varianttld-recommendations-analysis-25jan19-en.pdf#page=3; rationale for Recommendation 25.5 in the SubPro PDP Final Report, p.117: https://gnso.icann.org/sites/default/files/file/field-file-attach/final-report-newgtld-subsequentprocedures-pdp-02feb21-en.pdf#page=117; Section 3.2 in the Staff Paper, pp.6-7: https://www.icann.org/en/system/files/files/files/idn-variant-tld-recommendations-analysis-25jan19-en.pdf#page=6

<u>https://gnso.icann.org/sites/default/files/file/field-file-attach/final-report-newgtld-subsequent-procedures-pdp-02feb21-en.pdf#page=115;</u> Recommendation 7 in the Staff Paper, p.4: <u>https://www.icann.org/en/system/files/files/idn-variant-tld-recommendations-analysis-25jan19-en.pdf#page=4</u>

¹⁸ The initial set of IDN variant TLD management recommendations proposed for public comment also required that the IDN variant TLDs be implemented using the same nameservers, unless otherwise justified. However, that recommendation is now removed based on the feedback received by the community asking for more operational flexibility in the implementation of IDN variant TLDs.

b5) Do restrictions that apply to a TLD (e.g., community TLDs, dot brand TLDs) also apply to its variants? Are these labels equally treated as different versions of the same string, or completely independent strings not bound by the same restrictions?

C. "Same entity" at the second-level:

c1) Both the SubPro PDP and the Staff Paper recommend that: 1) a given second-level label beneath each allocated variant TLD must have the "same entity"; and 2) all allocatable second-level IDN variant labels that arise from a registration based on a second-level IDN table must have the "same entity".¹⁹

Should this recommendation be extended to existing second-level labels?

Response: Yes.

c2) Currently Registry Operators may activate the IDN variant labels at the second-level when requested by the sponsoring Registrar of the canonical name as described in the IDN Tables and IDN Registration Rules.²⁰ Both the SubPro PDP and the Staff Paper recommend that at the second-level, the same entity definition can be achieved by ensuring that the registrant is the same.²¹

Should this recommendation be extended to the already activated IDN variant labels at the second-level? How does the "same entity" requirement impact the current rules for Registry Operators for activating IDN variant labels?

Response: Yes, to enable consistent user experience as noted in SAC060, the same entity definition should be extended to apply to the already activated IDN variant labels at the second level.

c3) The WG and the SubPro IRT to coordinate and consider the following question in order to develop a consistent solution: what is the appropriate mechanism to identify the registrant as the "same entity" at the second-level for future and existing labels?

The Staff Paper recommends using ROID to ensure that the same label beneath all variant labels is allocated to the same entity.²² However, some registrars in practice may

¹⁹ See Recommendation 25.6 in the SubPro PDP Final Report, p.116:

https://gnso.icann.org/sites/default/files/file/file/file-attach/final-report-newgtld-subsequent-procedures-pdp-02feb21en.pdf#page=116; Recommendation 3 in the Staff Paper, p.3: https://www.icann.org/en/system/files/files/files/idn-varianttld-recommendations-analysis-25jan19-en.pdf#page=3; Recommendation 25.7 in the SubPro PDP Final Report, p.116: https://gnso.icann.org/sites/default/files/file/file/file-attach/final-report-newgtld-subsequent-procedures-pdp-02feb21-en.pdf#page=116; Recommendation 4 in the Staff Paper, p.4: https://www.icann.org/en/system/files/file

²⁰ See Section 2.2 in the "Standard Amendment Language, Add Internationalized Domain Names (IDNs) - May Activate Variants" here: <u>https://www.icann.org/en/system/files/files/standard-amendment-language-add-idns-may-activate-variants-14jun19-en.pdf</u>

²¹ See Rationale for Recommendation 25.6-25.8 in the SubPro PDP Final Report, pp.117-118: <u>https://gnso.icann.org/sites/default/files/file/file-attach/final-report-newgtld-subsequent-procedures-pdp-02feb21-en.pdf#page=117;</u> Section 3.2.1 in the Staff Paper, p.7: <u>https://www.icann.org/en/system/files/files/files/idn-variant-tld-recommendations-analysis-25jan19-en.pdf#page=7</u>

²² Besides ROID, the Staff Paper also includes additional options to achieve the same entity requirement: having all the registrant fields be the same (without considering the ROID) for both names; having a core subset of the

not reuse contact objects for different registrations by the same registrant, and there is no existing data on the number/percentage of ICANN accredited registrars that reuse contact ROID.23

Is ROID a reasonable mechanism to determine the same registrant at the second-level for both future and existing labels? If not, what mechanism/functional definition can be used to ensure the second-level variant labels are allocated to the same entity for both current and future TLDs? Consider this question by taking into account the data to be collected in the "Data and Metric Requirements" section of this charter.

c3a) If the Working Group determines to use ROID as the mechanism to identify the registrant as the "same entity" at the second-level, are there additional requirements to ensure the "same entity" principle is followed?²⁴

c4) A registry TLD may offer registrations using different IDN tables to support different languages or scripts.²⁵ In case multiple IDN tables are offered, IDN tables should produce a consistent set of second-level variant labels to help achieve the security and usability goals for managing variant labels in a stable manner, promoting a good user experience.26

As such, the Staff Paper recommends that IDN tables of variant TLDs be mutually coherent, i.e. any two code points (or sequences) that are variants in TLD 't1' cannot be non-variants in variant TLD 't1v1'.²⁷ This recommendation also implies that any two code points (or sequences) that are variants in IDN Table A for TLD t2, which does not have any variant TLD, cannot be non-variants in another IDN Table B for the same TLD t2.28

Should the second-level IDN tables offered under a TLD, including IDN variant TLDs, be required to be mutually coherent? If yes, how should existing registrations which may not

https://www.icann.org/en/system/files/files/idn-variant-tld-motivation-premises-framework-25jan19-en.pdf

registrant fields be the same (without considering the ROID) for both names; or requiring a cryptographic probe that both registrants are indeed the same. See Section 3.2.1 in the Staff Paper, p.7:

https://www.icann.org/en/system/files/files/idn-variant-tld-recommendations-analysis-25jan19-en.pdf#page=7

²³ If a large portion of registrars do not reuse contact objects (ROID) for registrant, then changing the status guo would be a major development undertaking for a potentially small market for variants. Note that for interoperability virtually all registrars would need to support the same "glue" method to support inter-registrar transfers.

²⁴ If the same contact ROID or functional equivalent is used to identify registrants, no registrant metadata syncing is needed, as the registrant metadata is automatically the same for all registrants of every allocated variant based on ROID. This also means that issues around privacy and proxy services are addressed, because the privacy or proxy service must still generate a contact ROID (or its functional equivalent) for the registrant. However, the Staff Paper notes that if a registration system does not use contact objects, a requirement about registrant metadata syncing will be needed to ensure the "same entity" rule. See Section 3.9.1 in the Staff Paper, p.22: https://www.icann.org/en/system/files/files/idn-variant-tld-recommendations-analysis-25jan19-en.pdf#page=22

²⁵ Registry TLD refers to a single TLD in a RA, not the Registry Operator which may operate one or more TLDs. ²⁶ See "Motivation, Premises, and Framework" section of the Staff Paper:

²⁷ The intent of the recommendation is that a given TLD's IDN tables be harmonized, not all of the Registry Operator's IDN tables for all the TLDs it operates, but with exception of variant TLDs that the Registry Operator also operates. See Recommendation 5 in the Staff Paper, p.4: https://www.icann.org/en/system/files/files/idn-variant-tldrecommendations-analysis-25jan19-en.pdf#page=4

²⁸ The Staff Paper does not explicitly make such recommendation with respect to a given TLD that does not have variants, but the proposed IDN Implementation Guidelines 4.0 recommends such.

meet the "mutually coherent" requirement of second-level IDN tables be addressed? Rationale must be clearly stated.

Response: An analysis is needed to determine the extent of existing registrations that do not meet the mutually coherent requirement.

c4a) Notwithstanding that IDN tables need to be mutually coherent, the SubPro PDP and the Staff Paper recommend that the set of allocatable or activated second-level variant labels may not be identical across the activated IDN variant TLDs. Meaning, their behavior/disposition can be different.²⁹

Under the conditions above, may the set of allocatable or activated second-level variant labels not behave identically under an individual TLD, which does not have any variant TLD label?

c5) There is existing practice by registries to harmonize IDN tables, but there is no data on the various methods they may have used. The Staff Paper suggests maintaining a common set of harmonized second-level IDN tables for all IDN variant TLDs and then (a) choosing all these IDN tables to offer for all IDN variant TLDs, or (b) choosing a relevant different subset of IDN tables to offer for each different IDN variant TLD.³⁰

The WG and the SubPro IRT to coordinate and consider the following question in order to develop a consistent solution: are the above suggested methods in the Staff Paper sufficient for IDN table harmonization purposes? Should any additional implementation guidance be provided for a registry?

c6) To facilitate the harmonization of IDN tables, the Staff Paper recommends that IDN tables for the second-level be formatted in the machine readable LGR format specified in RFC 7940, Representing Label Generation Rulesets Using XML.³¹ However, each Registry Operator can harmonize the IDN tables today via software development solutions or are already in process of doing so.

The WG and the SubPro IRT to coordinate and consider the following question in order to develop a consistent solution: should Registry Operators be required to use the machine readable LGR format as specified in RFC 7940 for their second-level IDN tables? Or should Registry Operators have the flexibility to resolve the harmonization issue so long as it can predictably and consistently produce the same variant labels, albeit with different disposition values, across the same-script IDN tables? Consider this

²⁹ See Recommendation 25.8 in the SubPro PDP Final Report, p.116:

https://gnso.icann.org/sites/default/files/file/field-file-attach/final-report-newgtld-subsequent-procedures-pdp-02feb21en.pdf#page=116; Recommendation 6 in the Staff Paper, p.4: <u>https://www.icann.org/en/system/files/files/idn-variant-</u>tld-recommendations-analysis-25jan19-en.pdf#page=4

³⁰ See Section 3.5.1 in the Staff Paper, p.14: <u>https://www.icann.org/en/system/files/files/idn-variant-tld-recommendations-analysis-25jan19-en.pdf#page=14</u>

³¹ See RFC 7940 here: <u>https://www.rfc-editor.org/info/rfc7940</u>; Section 3.3.1 in the Staff Paper, pp.9-10: <u>https://www.icann.org/en/system/files/files/idn-variant-tld-recommendations-analysis-25jan19-en.pdf#page=9</u>

question by taking into account the data to be collected in the "Data and Metric Requirements" section of this charter.

D. Adjustments in registry agreement, registry service, registry transition process, and other processes/procedures related to the domain name lifecycle:

d1) The same entity principle for variant TLDs -- having the same registry operator and the same back-end registry service provider for gTLD and its variant labels at the top-level -- needs to be effectuated legally and operationally.

From a legal standpoint there will be a binding document(s) between ICANN and the registry operator (e.g., Registry Agreement), which should memorialize the relationship between each allocated TLD and its variant labels, as well as the obligations to maintain such condition during the life of the contract(s).

From an operational standpoint, an application process, testing of registry services, fee structure, and other aspects need to be defined and developed.

The EPDP should discuss and develop the proper legal and operational framework in order to strike a balance between conservatism, innovation, adoption and other aspects of the IDN implementation. The WG and the SubPro IRT to coordinate and consider the following questions in order to develop a consistent solution:

d1a) A TLD is subject to a Registry Agreement with ICANN. In case of IDN variant TLDs, ICANN would execute the Registry Agreement with the same entity but potentially diverge in future Registry Agreement amendments, addendums, and renewals. Should each TLD label be the subject of a separate Registry Agreement with ICANN?³² If not, should each TLD label along with its variant labels be subject to one Registry Agreement with the same entity? Rationale for such definition must be clearly stated along with the answer, including goals and motivations.

d1b) What should be the process by which an existing registry operator could apply for, or be allocated, a variant for its existing gTLD? What should be the process by which an applicant applying for a new IDN gTLD could seek and obtain any allocatable variant(s)? What should be the associated fee(s), including the application fees and annual registration fees for variant TLDs? Should any specific implementation guidance be provided?³³

³² Based on the premise that an IDN variant TLD label is a TLD label with its status indistinguishable from any other TLD label in the root zone, the Staff Paper recommends that each variant TLD would be the subject of a separate Registry Agreement with ICANN, as each variant TLD is, in effect, one a TLD. See Section 3.6 in the Staff Paper, p.15: <u>https://www.icann.org/en/system/files/files/idn-variant-tld-recommendations-analysis-25jan19-en.pdf#page=15</u>

³³ SubPro PDP did not have substantive discussion about this question. Some SubPro PDP members believe that allocatable variant TLDs should be made available to IDN gTLD registry operators and applicants, with only limited procedures and costs in place. As these deliberations arose late in the SubPro PDP's life cycle, the group elected to only recommend the "same entity" principle for variant TLDs but refrained from providing recommendations on how variant TLDs can be obtained. However, SubPro includes in its recommendation that the "same entity" policy for the top-level must be captured in the relevant Registry Agreement. See Rationale for Recommendation 25.5 in the SubPro PDP Final Report, p.117: https://gnso.icann.org/sites/default/files/file/file/file-attach/final-report-newgtld-

d2) In order to ensure that the same entity principle is maintained for a gTLD and its allocated variant TLD labels, what are the operational and legal impacts to the:

- Registry Transition Process or Change of Control in the Registry Agreement;³⁴
- Emergency Back-End Registry Operator (EBERO) provisions; and
- Reassignment of the TLD as a result of the Trademark Post-Delegation Dispute Resolution Procedure (TM-PDDRP)?³⁵

d3) In order to ensure that the same entity principle is maintained, what are the operational and legal impacts to the data escrow policies, if any.³⁶

d4) Regarding second-level domain names, should a variant set behave as one unit, i.e. the behavior of one domain name is replicated across the other variant domain names? Or should each variant domain name have its own independent domain name life cycle?³⁷ Consider the operational and legal impact of the "same entity" principle, if any, to all aspects of a domain name lifecycle, including but not limited to:

• Registration, including registration during the Sunrise Period, any Limited

https://www.icann.org/en/system/files/files/idn-variant-tld-recommendations-analysis-25jan19-en.pdf#page=15 and Rationale for Recommendation 25.5 in the SubPro PDP Final Report, p.117:

https://gnso.icann.org/sites/default/files/file/field-file-attach/final-report-newgtld-subsequent-procedures-pdp-02feb21en.pdf#page=117

³⁵ The Staff Paper recommends that an emergency transition of a TLD to an EBERO must trigger an emergency transition of all variant TLDs to the EBERO. In addition, the SubPro PDP also agrees that EBERO would be impacted due to the persistent requirement of ensuring that variant TLDs must remain linked contractually. See Section 3.6 in the Staff Paper, p.16: <u>https://www.icann.org/en/system/files/files/idn-variant-tld-recommendations-analysis-25jan19-en.pdf#page=16</u> and Rationale for Recommendation 25.5 in the SubPro PDP Final Report, p.117:

https://gnso.icann.org/sites/default/files/file/field-file-attach/final-report-newgtld-subsequent-procedures-pdp-02feb21en.pdf#page=117. In the case where a Registry Agreement is terminated as a result of a TM-PDDRP determination, this would trigger the Registry Transition Procedure and various outcomes could apply. The Staff Paper notes that in the case of a reassignment of the TLD, the same entity rule should continue to apply so that the variant TLDs would be assigned to the same entity together. See Section 3.7 in the Staff Paper, p.18:

https://www.icann.org/en/system/files/files/idn-variant-tld-recommendations-analysis-25jan19-en.pdf#page=18

³⁶ Data escrow is the act of storing data with a neutral third party in case of registry or registrar failure, accreditation termination, or accreditation relapse without renewal. ICANN requires all registrars and gTLD registries to contract with a data escrow provider in order to safeguard registrants. Because each variant of the IDL set is just another registration, data escrow policies for TLDs apply individually to each. The Staff Paper notes that the data escrow requirements are automatically satisfied for variant TLDs. See Section 3.9.2 in the Staff Paper, p.22: https://www.icann.org/en/system/files/files/idn-variant-tld-recommendations-analysis-25jan19-en.pdf#page=22

subsequent-procedures-pdp-02feb21-en.pdf#page=117 and Recommendation 25.5 in the SubPro PDP Final Report, p.115: <u>https://gnso.icann.org/sites/default/files/file/field-file-attach/final-report-newgtld-subsequent-procedures-pdp-02feb21-en.pdf#page=115</u>

³⁴ The Staff Paper recommends that each set of registry agreement(s) must contain provisions requiring all the labels in the Internationalized Domain Label (IDL) set to follow the same process in the event of any registry transition via a Registry Transition Process or Change of Control. In no event, should the composition of the allocated and delegated set of variant TLDs be allowed to change at the same time as the change of the Registry Operator. The SubPro PDP also agrees that to the extent that the TLD were to change hands at any point after delegation, the variant TLDs must remain linked contractually, which should be considered a persistent requirement (e.g., this would impact gTLD registry transition procedures). See Section 3.6 in the Staff Paper, p.15:

³⁷ One view is that if each variant allocation is simply a different registration, it follows that names can be created and can expire at different times, despite the "same-entity" rule. See Section 3.9.4 in the Staff Paper, p.22: https://www.icann.org/en/system/files/f

Registration Period, any Launch Program and during General Registration

- Update
- Renewal
- Transfer
- Lock
- Suspension
- Expiration
- Redemption
- Deletion

d5) For reporting and fee accrual purposes, should each variant domain name be considered an independent registration? Or should such variant labels be considered as an atomic set (irrespective of whether any of the names is actually activated in the DNS, and whether any of the variants is actually registered)? Rationale for such definition must be clearly stated. Should any specific implementation guidance be provided? For example, what would be the impact to the registration payment at the Registry Operator level and at ICANN org?

d6) To ensure that the "same entity" principle is followed, the transfer of a domain name registration to a new entity -- voluntary or involuntary, and inter-registrants or inter-registrars -- should result in transfer of all variant domain names (i.e., if s1.t1 is to be transferred, s1.t1, s1.t1v1, s1v1.t1 and s1v1.t1v should all be transferred).

The WG, the Transfer Policy PDP, and the RPM PDP Phase 2 to coordinate and consider the following questions in order to develop a consistent solution: to what extent should the Transfer Policy be updated to reflect domain name relationships due to variants and the "same entity" requirement?

d6a) Should transfers ordered by the Uniform Domain-Name Dispute-Resolution Policy (UDRP) or any other dispute resolution mechanisms be treated the same way to follow the "same entity" requirement?³⁸

d7) Should the policies and procedures related to domain name suspension be updated to ensure that the "same entity" principle is followed for all variant domain names (i.e., if s1.t1 is to be suspended, s1.t1v1, s1v1.t1 and s1v1.t1v1 should all be suspended)? In other words, if one domain label is suspended, either voluntarily or involuntarily, should all the variant labels related to that domain be suspended?

d7a) Should the suspensions ordered by the Uniform Rapid Suspension System (URS) or any other dispute resolution mechanisms be treated the same way to follow the "same entity" requirement?³⁹

d8) What additional updates to the Registry Agreement are necessary to ensure the labels under variant TLDs follow the "same entity" rule? For example, the Staff Paper

³⁸ See more details about the UDRP related discussions in Section 3.7 in the Staff Paper, pp.17-18: https://www.icann.org/en/system/files/files/idn-variant-tld-recommendations-analysis-25jan19-en.pdf#page=17

³⁹ See more details about the URS related discussions in Section 3.7 in the Staff Paper, p.18: https://www.icann.org/en/system/files/files/idn-variant-tld-recommendations-analysis-25jan19-en.pdf#page=18

recommends that the following requirements must be included in the Registry Agreement; some of the charter questions are also related to those topics:⁴⁰

- Subordinate names allocated by the Registry Operator in the TLD be treated as an atomic set. This is true irrespective of whether any of the names is actually activated in the DNS, and whether any of the variants is actually registered. **[related to questions c1, d4, d5]**
- All the different IDN tables being used by the IDN gTLD and its variant gTLDs be harmonized. [related to questions c4, c5]
- All the IDN variant TLDs be implemented through the same registry service provider, to promote a consistent and stable implementation across all such variant TLDs. [related to questions b2, b4]

Are there any additional updates that need to be considered that are not included in this list?

E. Adjustments to objection process, string similarity review, string contention resolution, reserved strings, and other policies and procedures:

This Charter recognizes the processes established by the SubPro PDP and the inclusion of questions here is not to amend the structure or framework of those processes but rather, to ensure that they are able to properly accommodate variants and follow the same entity principle for existing and future gTLDs.

e1) In considering the conclusion(s) with respect to question **b4a)**, what role, if any, do TLD labels "withheld for possible allocation" or "withheld for the same entity" play vis-a-vis:

- objection process; and
- string similarity review process?

e2) Under the rules of the most recent gTLD application round, there are four criteria for objections to a string (see *gTLD Applicant Guidebook*, version 2012-06-04, section 3.2.1).⁴¹ The SubPro PDP has also affirmed the continuation of these four criteria for objections to a string, while proposing recommendations and implementation guidance to enhance/adjust these criteria.⁴²

The WG and the SubPro IRT to coordinate to ensure consistency in the implementation of the **objection** process for the variant label applications of existing and future TLDs.

⁴⁰ Section 3.6 in the Staff Paper, p.16: <u>https://www.icann.org/en/system/files/files/idn-variant-tld-recommendations-analysis-25jan19-en.pdf#page=16</u>:

⁴¹ The four criteria are: String Confusion Objection; Legal Rights Objection; Limited Public Interest Objection; and Community Objection.

⁴² See "Topic 31: Objections" in the SubPro PDP Final Report, pp.145-154:

https://gnso.icann.org/sites/default/files/file/field-file-attach/final-report-newgtld-subsequent-procedures-pdp-02feb21en.pdf#page=145

e3) In the Initial Evaluation for new gTLD applications, a proposed applied-for TLD is checked against several criteria as part of the string similarity review process (see *gTLD Applicant Guidebook*, version 2012-06-04, section 2.2.1.1.1).⁴³ The SubPro PDP affirmed these standards, while proposing recommendations and implementation guidance to enhance the process.⁴⁴

The WG and the SubPro IRT to coordinate to ensure consistency in the implementation of the **string similarity review** procedure for variant label applications of existing and future gTLDs.⁴⁵

e3a) After a requested variant string is rejected as a result of a string similarity review, should the other variant strings in the same variant set remain allocatable? Should individual labels be allowed to have different outcomes/actions (e.g., some labels be blocked and some be allowed to continue with an application process)?⁴⁶

e4) Under current procedures, resolution of string contention for applied for gTLD strings may include components such as a settlement between the parties, a community priority evaluation (if a community-based applicant in a contention set elects this option), and an auction. SubProp PDP affirmed these components while proposing recommendations

⁴³ These criteria are: existing TLDs and reserved names; other applied-for strings; strings requested as IDN ccTLDs; and applied-for 2-character IDN gTLD strings against every other single character and any other 2-character ASCII string.

⁴⁴ See "Topic 24: String Similarity Evaluations" in the SubPro PDP Final Report, pp.108-114:

https://gnso.icann.org/sites/default/files/file/field-file-attach/final-report-newgtld-subsequent-procedures-pdp-02feb21en.pdf#page=108

⁴⁵ The Staff Paper recommends that the string similarity process to compare strings under consideration not just against all allocated or applied-for strings, but also all variants of those strings (including allocatable, withheld-sameentity, and blocked). For example, if a string is merely withheld-same-entity and a second string is visually similar, then allocating the second string undermines the predictability of the outcome of variant processing from the RZ-LGR. Similarly, if a string is blocked under the RZ-LGR, but a visually similar string is allocatable, then the second (visually similar) string might become a "work around" for the blocked string. This approach is maximally conservative. It is nevertheless worth noting that this expands considerably the number of strings that might need to be considered; the entire similarity review process will consequently probably become more expensive to operate. See Section 3.8 Adjustments in String Similarity Process in the Staff Paper, pp.18-19: https://www.icann.org/en/system/files/files/idn-variant-tld-recommendations-analysis-25jan19-en.pdf#page=18

Staff Paper further recommends that in the event that two or more applied-for variant strings are visually similar, they may only be allocated if they are associated with the same variant set and are being requested by the same entity. In case of such conflicts across variants, the entire IDL set gets processed as one contention set; if one of the labels is already allocated, the contention is resolved in favor of the current operator. The Staff Paper recommends that it is necessary to perform the visual similarity checks for every requested-to-be-allocated variant in any given set against all the possible variants in every other set. This is because such an available variant could be requested at any time in the future. See Section 3.8.1 in the Staff Paper, pp.20-21: https://www.icann.org/en/system/files/files/idn-variant-tld-recommendations-analysis-25jan19-en.pdf#page=20

⁴⁶ The Staff Paper recommends that the following outcomes may be considered: 1) only the variant string requested for delegation is rejected. For example, the requested variant t1v2 of top-level label t1 will get rejected while t1v1 and t1v3 from the same variant set continue to remain allocatable; or 2) the entire variant set is rejected. For example, the requested variant t1v2 of top-level label t1 will get rejected including t1v1 and t1v3 from the same variant set as t1v2. This outcome appears to be difficult to justify, though an applicant could decide that, if it cannot receive t1v2 then it does not wish to proceed with the application. See Section 3.8.2 in the Staff Paper, pp.21: https://www.icann.org/en/system/files/files/idn-variant-tld-recommendations-analysis-25jan19-en.pdf#page=21

and implementation guidance to enhance the mechanisms for string contention resolution.⁴⁷

The WG and the SubPro IRT to coordinate to ensure consistency in the implementation of the **string contention resolution** mechanism for variant label applications of existing and future new gTLDs.⁴⁸

e5) The WG and the SubPro IRT to coordinate and consider the following questions in order to develop a consistent solution: should the **reserved strings** ineligible for delegation for existing and future gTLDs be updated to include any possible variant labels? Consider this question by taking into account the data to be collected in the "Data and Metric Requirements" section of this charter.

e6) The WG and the SubPro IRT to coordinate and consider the following questions in order to develop a consistent solution: is there any reason to permit the registration of gTLDs consisting of decorated two-character Latin labels which are not variant labels of any two-letter ASCII labels?⁴⁹ If so, rationale must be clearly stated.

e7) Besides the objection process, string similarity review, and string contention resolution, what other ICANN policies and procedures should be updated to enforce the "same entity" rule and the use of RZ-LGR as the sole source to calculate the variant Labels and disposition values?⁵⁰ See the list of ICANN Consensus Policies here: https://www.icann.org/resources/pages/registrars/consensus-policies-en

F. Adjustments in registration dispute resolution procedures and trademark protection mechanisms:

f1) Trademark Clearinghouse (TMCH) mechanism functions include authenticating information from rights holders and providing this information to registries and registrars. Recording a trademark with the TMCH provides a rights holder with access to Sunrise registration periods in new gTLD registries and the Trademark Claims services. If Registry Operator has implemented IDN variant registration policies for the TLD, Registry Operator MAY allocate or register IDN variant labels generated from a label

⁴⁷ See "Topic 35" in the SubPro PDP Final Report, pp. 173-182: <u>https://gnso.icann.org/sites/default/files/file/field-file-attach/final-report-newgtld-subsequent-procedures-pdp-02feb21-en.pdf#page=173</u>

⁴⁸ For contention issues that involve the same entity, the Staff Paper suggests that the following resolution options may be considered, with a preference to the second option: 1) When the requested variant strings are placed in a contention set for later evaluation, the applicant is notified of the contention set and has the opportunity to establish that both applications are from the same entity. 2) It may be more efficient to establish early on in the string similarity review that the variant strings are being requested by the same entity prior to reaching the contention phase. See Section 3.8.2 in the Staff Paper, p. 21: <u>https://www.icann.org/en/system/files/files/idn-variant-tld-recommendations-analysis-25jan19-en.pdf#page=21</u>

⁴⁹ The ccTLD labels in the root depend on an external registry (ISO 3166) that allocates alphabetic codes to countries. In order to ensure that no conflicts with future assignments by ISO can happen, ICANN has traditionally also maintained a restriction against the use of two-letter TLDs for all Latin script letters; no variants should be generated for ccTLDs based on the ISO3166 codes. This principle is also reaffirmed by the SubPro PDP. See Recommendation 21.6 in the SubPro Final Report, p.95: <u>https://gnso.icann.org/sites/default/files/file/field-file-attach/final-report-newgtld-subsequent-procedures-pdp-02feb21-en.pdf#page=95</u>

⁵⁰ IDN Variant TLD Implementation Staff Paper: <u>https://www.icann.org/en/system/files/files/idn-variant-tld-recommendations-analysis-25jul18-en.pdf</u>

included in a valid SMD file during the Sunrise Period, provided that (i) such IDN variant registration policies are based on the Registry Operator's published IDN tables for the TLD and (ii) such policies are imposed consistently in the Sunrise Period, any Limited Registration Period, any Launch Program and during General Registration.⁵¹

The Review of All Rights Protection Mechanisms (RPMs) in All gTLDs PDP Phase 1 recommends maintaining the TMCH's current "exact match" rules, the current availability of Sunrise registrations only for identical matches, and the current exact matching criteria for the Claims Notice.⁵²

In considering the information above, are there any adjustments to the TMCH and its Sunrise and Trademark Claims services needed?⁵³ Consider this question by taking into account the data to be collected in the "Data and Metric Requirements" section of this charter.

f2) In order to ensure that the "same entity" principle is maintained, what are the additional operational and legal impacts to the following RPMs that are not considered in the above charter questions, which mostly concern the outcomes or remedies of dispute resolution procedures or trademark protection mechanisms?

- TMCH and its Sunrise and Trademark Claims services
- URS
- TM-PDDRP
- UDRP

IDN Implementation Guideline

G. Process to update the IDN Implementation Guidelines

⁵¹ See section 2.4.2 of the Trademark Clearinghouse Rights Protection Mechanism Requirements: <u>http://newgtlds.icann.org/en/about/trademark-clearinghouse/rpm-requirements-30sep13-en.pdf</u>

⁵² See RPM Phase 1 Final Report, TMCH Final Recommendation #2, Sunrise Final Recommendation #4, and Trademark Claims Final Recommendation #4 on pp.35-36, 44, and 52-53 here:

https://gnso.icann.org/sites/default/files/file/field-file-attach/rpm-phase-1-proposed-24nov20-en.pdf

⁵³ SAC060 points out that in the current design of RPMs related to the TMCH process, there is a risk of homographic attacks. From a security and operations perspective, domain names that contain variants of a mark must be protected during the Sunrise and Claims Period. SSAC advises two ways to handle variants and TMCH to achieve such protections; each has benefits and downsides: 1) variant calculation at the registry level, and checking TMCH for the existence of marks for variants in the calculated variant set; 2) variant calculation and checking inside the TMCH in addition to the already defined matching algorithm TMCH uses. See more information in SAC060, recommendation 10 on pp.16-18: https://www.icann.org/en/system/files/files/sac-060-en.pdf#page=16 SAC060 further argues that the "exact match" as defined by TMCH is not really an identical match as in "bit-by-bit" or "character-by-character comparison" as a transformation stage is included before the actual matching. From a technical standpoint, the transformation stage currently as specified from is unclear and does not take non-ASCII based scripts into account. See SAC060, Recommendation 12, pp.19-20: https://www.icann.org/en/system/files/files/sac-060-en.pdf#page=19. The SSAC also advises that during the Trademark Claims service, a name registered under a TLD that has variant TLDs should trigger trademark holder notifications for the registration of the name in the TLD and all its allocated variant TLDs. See SAC060, Recommendation 13, p.20: https://www.icann.org/en/system/files/files/sac-060-en.pdf#page=20

g1) What should be the proper vehicle to update the IDN Implementation Guidelines?⁵⁴

g1a) Given that the contracted parties are contractually bound to adhere to the IDN Implementation Guidelines, is there a need for a separate legal mechanism specifically for the implementation of IDNs among gTLDs, as well as a general guideline for any registry (including ccTLD registries) that wishes to implement IDNs?

⁵⁴ ccPDP4 refers to the Country Code Names Supporting Organization's Policy Development Process on the Selection and Deselection of IDN ccTLD Strings. The process to update the RDAP Profiles is being developed by the Contracted Parties and ICANN org as part of their ongoing contractual negotiations. A DT member suggested that once that is finalized, the EPDP Working Group may want to consider that as a model for updating the IDN Guidelines.