

1 **Overview of recommendations, Findings and Observations**

2 **Variant Management Sub-group**

3

4 Version 10

5 20 August 2021

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# 1 Section 1. Introduction

2 Version 09

3 05 August 2021

4

5 The Variant Management sub-group is expected to address the following gaps with respect to (IDN)ccTLDs:

- 6 • **How are Variants of the selected IDNccTLD string defined?**
- 7 • **How should variants of the selected IDNccTLD string be managed?**

8 With respect to the first question - the definition of TLD Variants - on 11 Apr. 2013, the ICANN Board [resolved](#) to  
9 implement the [LGR Procedure](#). The sub-group supports the definition and it is included in Section 1 as item # 1.

10

11 With respect to the second question, the management of IDNccTLDvariant TLD management mechanism, the sub-working  
12 group based its work on the following documents and background material:

13 The ICANN Board of Directors resolutions:

- 14 ▪ [approved](#) on 14 March 2019 [IDN Variant TLD Recommendations](#) and requested ccNSO and GNSO take into account  
15 the recommendations while developing their respective policies to define and manage the IDN variant TLDs for the  
16 current TLDs as well as for future TLD applications, and communicate for a consistent solution.
- 17 ▪ [approved](#) on 26 January 2020 [Recommendations for the Technical Utilization of the Root Zone Label Generation](#)  
18 [Rules](#) and requested the ccNSO and GNSO Councils take into account the Recommendations while developing their  
19 respective policies to define and manage the IDN variant TLDs for current TLDs as well as for future TLD  
20 applications.

21 In addition, and to provide an overview to the working group and ensure the coordinated and consistent approach as  
22 requested, the sub-group first looked at the IDN Variant TLD Recommendations. Starting point are the recommendations

1 as adopted by the Board. In addition, the sub-group looked at the GNSO view on these recommendations. The  
2 recommendations of the sub-group and their findings per recommendations are included (Section 2).

3  
4 For that same reason the sub-group looked the recommendations on the Technical Utilization of RZ-LGR. Again, first the  
5 recommendations as adopted by the Board. In addition, the sub-group looked at the GNSO view on these  
6 recommendations. The recommendations of the sub-group and their findings per recommendations are included Section  
7 3.

8  
9 Thirdly, and for the time being the sub-group identified 3 additional work areas:

- 10 - IDN Tables. Section 4 will include the findings and recommendations of the sub-group with respect to IDN  
11 Tables with respect to IDNccTLDs.  
12 - Impact recommendations sub-group on the process proposals of the full WG. The sub-group reviewed and  
13 suggested changes to the IDNccTLD selection process proposals as under development by the full WG.

14 Issues that require further discussion with the full working group. In the course of its work the sub-group has  
15 identified issues that require further discussion with the full working group. These issues are listed in section  
16 6. The main issue relates to the scope of a ccPDP and hence versus the requirement and need to ensure  
17 stability, security and interoperability of the DNS, both at the top and lower levels as a result of the  
18 introduction of variants.

19  
20

# 1 Section 2. Overview IDN Variant TLD Recommendations

## 2 Item 1. Defining IDN Variant TLDs

### 3 A. Staff recommendation.

4 RZ-LGR MUST be the only source for valid TLDs and their variant labels. (same as first IDN Variant TLD recommendation –  
5 see below)  
6

### 7 B. GNSO SubPro Recommendation.

8 **Recommendation 25.2:** Compliance with Root Zone Label Generation Rules (RZ-LGR, RZ-LGR-2, and any future RZ-LGR  
9 rules sets) must be required for the generation of TLDs and variants labels, including the determination of whether the  
10 label is blocked or allocatable. IDN TLDs must comply with IDNA2008 (RFCs 5890-5895) or its successor(s). To the extent  
11 possible, and consistent with Implementation Guidance 26.10, algorithmic checking of TLDs should be utilized.  
12

13 **Recommendation 25.2:** Compliance with Root Zone Label Generation Rules (RZ-LGR, RZ-LGR-2, and any future RZ-LGR  
14 rules sets) must be required for the generation of TLDs and variants labels, including the determination of whether the  
15 label is blocked or allocatable. IDN TLDs must comply with IDNA2008 (RFCs 5890-5895) or its successor(s). To the extent  
16 possible, and consistent with Implementation Guidance 26.10, algorithmic checking of TLDs should be utilized.  
17

18 To the extent possible, and consistent with Implementation Guidance 26.10, algorithmic checking of TLDs should be  
19 utilized.  
20  
21

1 Implementation Guidance 26.10: The application submission system should do all feasible algorithmic checking of TLDs,  
2 including against RZ-LGRs and ASCII string requirements, to better ensure that only valid ASCII and IDN TLDs can be  
3 submitted. A proposed TLD might be algorithmically found to be valid, algorithmically found to be invalid, or verifying its  
4 validity may not be possible using algorithmic checking. Only in the latter case, when a proposed TLD doesn't fit all the  
5 conditions for automatic checking, a manual review should occur to validate or invalidate the TLD.  
6

7 **C. ccPDP4 VM Subgroup Recommendation.**

8 **Definition of Variants.** Compliance with Root Zone Label Generation Rules (RZ-LGR, RZ-LGR-2, and any future RZ-LGR rules  
9 sets) MUST be required for the generation of IDNccTLDs and variants labels, including the determination of whether the  
10 label is blocked or allocatable. IDN TLDs must comply with IDNA2008 (RFCs 5890-5895) or its successor(s).  
11

12 **D. Sub-group Findings and Discussion.**

13 Staff Question: what if, if relevant script (the script in which the Designated Language is expressed) is not (yet) integrated in RZ-LGR? (see also item 5 table  
14 2). Looking at the SUBPro recommendation, distinction between blocked and allocatable  
15 Clarify the difference? Discussed  
16

17 Question check if understood correctly. If a IDNccTLD is requested i.e. meets criteria of meaningfulness and IDNA 2008, sufficient or also required that.  
18 Blocked and allocatable. Difference: allocatable applied potential strings  
19

20 RZ-LGR Designed tool string / label. Output set contain all variants. Blocked maximized, variants  
21 Note discussion on requirements for IDN ccTLD string: Technical criteria in general apply.  
22

23 IDN TLDs strings must comply with IDNA2008 (RFCs 5890-5895) or its successor(s).  
24  
25

## 1 **Item 2. Allocation of TLD to the same entity**

### 2 **A. Staff recommendation.**

3 IDN variant TLDs {t1, t1v1, ...} MUST be allocated to same entity.

4

5 For IDN variant TLDs that arise from an application and the RZ-LGR, all allocatable IDN variant TLD labels in the set must be  
6 allocated to the same entity or withheld for possible allocation only to that entity. In other words, for a top-level label t1  
7 allocated to Entity X, its allocatable variant label t1v1 must only be allocated to Entity X or else withheld for possible  
8 allocation only to Entity X.

9

### 10 **B. GNSO SubPro Recommendation.**

11 **Recommendation 25.5:** IDN gTLDs identified as variant TLDs of already existing or applied for gTLDs will be allowed only if  
12 labels are allocated to the same entity and, when delegated, only if they have the same back-end registry service provider.  
13 This policy must be captured in relevant Registry Agreements.

14

### 15 **C. ccPDP4 VM Subgroup Recommendation.**

16 **IDN variant TLDs {T1, T1V1, ..,T1Vx} MUST be allocated to same entity.** The set of allocatable variant strings that is  
17 generated from the selected IDNccTLD string by applying the RZ-LGR, MUST be allocated to one and the same entity, the  
18 requestor (the entity that submits the selected IDNccTLD string), delegated to one and the same entity, the IDN ccTLD  
19 Manager) or withheld for possible future delegation to the IDNccTLD Manager. In other words, for a selected top-level  
20 label T1, its allocatable variant label(s) T1V1,..., T1Vx shall only be allocated to the IDN ccTLD requestor, or - after the



1 delegation process for the selected IDNccTLD string has been initiated - delegated to the same IDNccTLD Manager or  
2 withheld for possible delegation to that IDNccTLD Manager.

3  
4 If a specific IDNccTLD is operated by a "back-end" registry service provider under arrangement with the IDNccTLD  
5 Manager, or will be operated by a "back-end" registry service provider under arrangement with the IDNccTLD Manager,  
6 then that "back-end" service provider MUST operate all delegated variants of that specific IDNccTLD as well. See  
7 recommendation 7

8 **Agreed text 27 July 2021**

9 **D. Sub-group Findings and Discussion.**

10 Question: in description the word arise is used: Does this imply no need to request? The Variants are assigned automatically?

11 Not all variants are IDNs, some may be ASCII, if ASCII how does this relate general requirement ( at least one non-ASCII character). Is there a potential  
12 hierarchy of requirements? uncover requirements Flag for full working group

13 If in principle all Variants of IDNccTLD are allowed to be delegated -> ASCII string. What if ASCII string already exists?

14

15 Note: related to discussion section 3 item 6. SSAC recommendation to minimize number of delegated strings. Potential unnecessary burden if to many  
16 variants are all delegated. Potential solution is to limit the number allowable (delegatable ) IDNccTLDs strings to variant IDNccTLD strings that are  
17 meaningful.

18

19 What are characteristics of entity in context of IDNccTLDs? Once a selected string has been verified, it will be delegated as a ccTLD to the ccTLD Manager. Is  
20 this the idea?

21

22 Note that some ccTLD Managers have an arrangement with a back-end provider. Should a similar, mandatory arrangement be provided as a requirement  
23 for delegation of variants?

24

25 Should Back-end registry service provider be defined as term?

26

27 ccNSO Institutional Issue. Assuming variants will be delegated to the same ccTLD Manager, should the ccTLD Manager for each, and every variant of the  
28 selected IDNccTLD string be treated as an individual ccTLD Manager, and may therefore become member of the ccNSO for each, and every variant  
29 IDNccTLD?

1  
2 Description staff recommendation, the word “arise” is used. If an organisational entity submits an IDN ccTLD string then RZ-LGR is applied, and variants  
3 occur. If they are allocatable, what happens? Bundled with the selected string?  
4 Yes, that is accurate, but not use term bundled. Blocked variants: not allocatable to anybody. The allocatable variants will be put aside for the same  
5 applicant for potentially use.  
6  
7 Q: Does the entity need to request the delegation of the variant strings as well? Is that done automatically?  
8 Response: “withheld” is the right term. Not use the term “reserved”, because those strings cannot go to any applicant. Being withheld is an automatic step.  
9 But the delegation is not an automatic step.  
10  
11 Note: In principle delegation follows the IANA delegation process and at the request of the future IDN ccTD manager.  
12  
13 Q: next step? Automatic delegation? Other criteria of string evaluation for IDN ccTLDs. One thing for the WG to consider is to create the strings  
14 automatically. May or not fulfill the evaluation criteria for the strings.  
15 Q!: are the meaningfulness criteria still valid for variants?  
16  
17 Response: yes, but not only. Technical criteria too. Multiple factors.  
18  
19 Question: criteria as developed by the main group should apply to the variant as well?  
20 Response: see original recommendations from the staff report. Recommendation 9: all existing processes should apply, unless there is an explicit exception.  
21 Same rigour. Original process applies to each variant, unless there are documented exceptions by the WG. Response : let’s discuss when we reach  
22 recommendation 9 from the staff paper.  
23  
24 Q: How was this viewed in the ccNSO SubPro discussions? What should be the same entity? Should this be the ccTLD manager, or someone else?  
25 Registry operators in the gTLD world. Entity that is the TLD manager  
26  
27 Q: regarding the backend providers, should we include anything here? Response: IDNccTLDs with high level of complexity. Limited practice in this area. Be  
28 conservative at the start. If same entities operate the variant TLDs, it is easier to manage the complexity. Response: supported by one of the principles of  
29 the full WG.  
30 Mechanism where we strongly urge, support and almost enforce IDNccTLD managers to adhere to this basic recommendation. ccTLD-world does not have a  
31 registry Agreement. If we suggest to leave this up to implementation, there will be a lot of push-back.  
32 Q: what is backend provider? The technical support provider (TSP)? R: yes. Example AUDA. clear line between the policy-setting and administrative  
33 organisation on the one hand, and the operational and technical organisation.

1 With respect to “back-end service providers” see also item 7 below  
2 Q: Suppose the backend is still the same, how will this recommendation become invalid?  
3 Response: If you have multiple variants under management, the entity could assign the various variants to backends among several parties. Situation you  
4 want to avoid. To ensure coherent management of variants.  
5 Note: Our company is a TSP. We are not a TLD manager. Even though 2 backend operators want to implement the same policies, there are always minor  
6 differences. Should be avoided for TLDs that are variants of each other.  
7  
8 Question: Do you agree with the principle of unified management? To be revisited next time. A few green marks, no red marks. Principle confirmed at  
9 meeting 27 June 2021  
10  
11 Next meeting: come up with a mechanism that would ensure this, to the extent possible.  
12 Q: once variants are delegated, will they be listed in the root zone DB as a separate entry?  
13 Response: the variant is an annotation to the string. Entry in the root zone, similar record as any other entry. Some constraints.  
14  
15 Note: suggestion to go back to IANA, and ask them for input.  
16 Response:  
17 Currently, IANA has NOT defined how it will handle variants. However please note the following in response:  
18 If multiple variants are intrinsically linked as an inviolable set, then IANA procedures will need to support the notion of them as a bundle and all the  
19 associated business processes will have to adapt accordingly. This would imply for example for a transfer of one, the whole set should be transferred. If, on  
20 the other hand, they are unconstrained and each variant can be treated as if it weren't part of a set (i.e. as a wholly independent TLD) then procedures do  
21 not need to be adjusted and treat each variant as a TLD with no special consideration for them being variants.  
22  
23 IANA expressed hope that whatever parameters / constraints is arrived at by ccNSO policy is will be compatible with GNSO policy. IANA strives wherever  
24 possible to have common approaches across all TLDs, so if we can represent ccTLD variants and gTLD variants in the same manner in the root zone  
25 database that will certainly simplify things greatly.  
26  
27 Note the concern in second paragraph from IANA relates to item 8 and item 9.  
28 Question: do variants follow the life-cycle of selected IDNccTLD string (of which they are derived)? Life-cycle: request for delegation, transfer (consented or  
29 after revocation), retirement. Should distinction be made between:  
30 

- What about blocked variants?
- What about allocatable but not delegated variants strings?
- What about delegated variant strings?

  
31  
32  
33

1 Note: 2 issues

- 2 • Membership ccNSO. Related to the iana root zone DB. if listed as a ccTLD manager, you are listed as such. Then you can apply for ccNSO  
3 membership. E.g. NIXI manages 22 ccTLDs including the IDN ccTLDs and .in. You can imagine that if there would be variants as well, the number of  
4 entries for NIXI in the root zone would increase. Requirements for ccNSO membership. The ccNSO had to deal with this: one vote per country.  
5 Implications and impact on the membership of the ccNSO  
6 Q: is this for this WG to discuss? Response: it is a consequence for introducing variants. May need to be flagged as something for the broad group to  
7 discuss (included in section 5)

8  
9 ccPDP3 retirement Policy recommendations on retirement are in the decision-making phase. One of the subgroups of ccPDP4 deals with the de-selection of  
10 IDN ccTLD strings. (i.e. retirement) if the IDN string is de-selected, should the variants follow the rules and practices of the selected IDN ccTLD string or not?

11  
12 Note: the next upcoming IDN GNSO PDP will weigh in on the implications of the same entity principle both on first and second level. One aspect is transfer  
13 (same entity to be preserved), if one variant label is intended to be moved, all other labels need to move to another entity. Operator and backend.

14  
15 Response: consistency principle to apply on transfer, revocation etc as well. That is the implication. Consistent with how things happen now.

16 Note comment above, IANA remarks

17  
18 Use term “ASSOCIATED” IDNccTLDs, to describe the set of selected IDNccTLD string (S1) and its variants (S1V1, ...S1,Vx) ?

19 Preference is to use descriptive terms and use them consistently. Basic terms are: “set of allocatable variants”, “set of blocked variants”, “set of delegated  
20 variants”.

21  
22 Staff Note: Note that according to the IDNccTLD process the selection process ends with publication of the validated string(s). After validation the IDNccTLD  
23 must be delegated in accordance with the ccTLD delegation process. Also note that the selected IDNccTLD string is requested by the reguestor (the entity  
24 that request the IDNccTDL string), this could be a different entity then the entity requesting the delegation of the IDNccTLD string (the latter is the  
25 IDNccTLD Manager). For example , a government agency or related entity , could request the IDnccTLD string, whilts the (ASCII) ccTLD Manager, could  
26 request the delegation of the IDNccTLD string (and [some of the] allocatable variant).

1 **Item 3. Allocation of SLD to the same entity**

2 **A. Staff recommendation.**

3 Same label under IDN variant TLDs s1.{t1, t1v1, ...} MUST be registered to the same entity.

4  
5 For each allocated IDN variant TLD, a given second level label beneath the TLD must only be allocated to the same  
6 entity/registrant, or else withheld for possible allocation only to that entity. In other words, s1 under {t1, t1v1, ...}, e.g.,  
7 s1.t1 and s1.t1v1, must be allocated to Entity Y or else withheld for possible allocation only to Entity Y.

8  
9  
10 **B. GNSO SubPro Recommendation.**

11 **Recommendation 25.6:** A given second-level label under any allocated variant TLD must only be allocated to the same entity/registrant, or  
12 else withheld for possible allocation only to that entity (e.g., s1 under {t1, t1v1, ...}, e.g., s1.t1 and s1.t1v1).

13  
14 **C. ccPDP4 VM Subgroup Recommendation.**

15 **A Second Level string registered under a delegated variant IDNccTLD strings MUST be registered for the same entity**  
16 **under all other variant IDNccTLD strings.** If (multiple) IDNccTLD variant strings have been delegated, then a second-level  
17 string that is registered under a (variant) IDNccTLD string MUST be registered for one and the same entity or withheld for  
18 possible future registration for that entity under all delegated IDNccTLD variant strings.

19  
20 Transitional arrangement to be discussed at later stage: If a variant IDNccTLD string is delegated after the IDNccTLD has  
21 become operational this recommendation also applies: under the newly delegated variant IDNccTLD string an already

1 registered second level string under another variant IDNccTLD variant string MUST be registered or withheld for future  
2 registration for the same entity.

3  
4 Note and comment. By definition (see recommendation 1 above) a domain and its variants are one and the same. For  
5 reasons of security, stability and interoperability of the DNS, one and the same domain can not be delegated or operated  
6 by two or more different entities.

#### 9 D. Sub-group Findings and Discussion.

10 From 27 July discussion:

11 We are talking about 1 SLD under multiple variant TLDs. Text should be adjusted. Variants are with the IDN ccTLD, not with the SLD. one SLD or a SLD.  
12 different to gTLD environment.

13  
14 Comment: Item 3 directly interferes with autonomy of ccTLDs to define policy for second level. Should be policy for TLD itself, and do not go further.

15  
16 Response: Strange/grey area You play with the stability, security, interoperability.

17 Sub-group should note this is an issue and WG has an ability to alert and improve the situation. If sub-group leaves it out now, there is no opportunity to  
18 add it later. Negotiating with ourselves. Anticipation is that there will be lots of discussion around this recommendation. We open possibilities.

19  
20 Temperature of the room.

21 You heard the argument. On the one hand, this could be over the line of the ccNSO policy remit as defined in Annex C. On the other hand, is the argument  
22 that variants are one and the same. Opening the possibility for diverging registrations would break that fundamental principle. Opportunity for the full  
23 group to chime in, and there will be a public comment too. You know there will be comments on this.

24 Temperature check Alternative wording: change Must to Should = recommendation.

25 Who would be in favor to change "must" to "should"? minority

26 Leave it as it is? Majority

27 Suggestion is to keep "must".

28 Note we are talking about variants. Single second level strings. Variants under the IDN variant ccTLD. Line item 11. This part still talks about variants at the  
29 2nd level. But in this recommendation we only talk about the top level.

1 Following adjustments of line 10, following needs to be adjusted too

2  
3  
4 Staff Note: Scope of ccNSO PDPs may be a limiting factor (Annex C ICANN Bylaws)

5 Use language Expected, but not mandatory? However, note that by definition (second level) domains and their variants are one and the same domain. This  
6 is derived from actual definition of variants.

7  
8 To considered the same by TLDs If the same string then same registrant, otherwise may causes security and stability issues.

9  
10 Question: what happens if two domain names which are deemed to be the same are delegated to two different entities?

11  
12 Same policies/difference. Re-iterated variants are delegated to same entities, however in practice the IDN table used may be differ from IDN table used for  
13 registration of SLDs under the TLD: apply different tables. Policy principle is the same.

14  
15 From the Fast Track application form:

16 **By signing and submitting this request the Requestor commits to** TLD operations that will secure and enhance the stability and interoperability of the  
17 Internet's Domain NameSystem (DNS) for the benefit of the local and global Internet community, and to working in good faith together with ICANN towards  
18 a stable and secure Internet DNS. The Requestor understands that ICANN reserves the right to take actions necessary to protect the security, stability and  
19 interoperability of the global DNS.

20 ICANN expects that IDN ccTLDs will be established and operated in the manner described below:

- 21 a. The IDN ccTLD manager shall establish, operate and maintain the authoritative name servers for the requested string in a stable and secure  
22 manner, adequate to resolve names within the requested string by users throughout the Internet and in compliance with Relevant Applicable  
23 Standards subject to and within the limits of relevant national law and national public policy. Relevant Applicable Standards are standards-track or  
24 best current practice RFCs sponsored by the Internet Engineering Task Force;
- 25 b. IDN domain names are to be registered in accordance with a publicly available registration policy that shall comply on an ongoing basis with  
26 relevant applicable standards to IDNs, such as the IDNA Protocol, and with the IDN guidelines as updated and published from time to time on  
27 the ICANN website, all subject to and within the limits of relevant applicable national law and public policy. This includes, but is not limited to,  
28 adherence to RFCs 3490, 3491, 3492, 3454 and their successors;
- 29 c. The IDN ccTLD manager should not use DNS redirection and synthesized DNSresponses within any level of the registry; and

1 d. The Requestor agrees that the IDN ccTLD manager will cooperatively engage with ICANN in the event of an activity or lack of activity that generates  
2 a serious concern regarding the stability, security or interoperability of the Internet's Domain NameSystem (DNS) from a global perspective. Briefly,  
3 the cooperative engagement process involves the designation of an official representative from ICANN and the IDN ccTLDmanager, who shall meet  
4 with each other telephonically and/or in person to address the concerns in good faith and attempt to reach a resolution.

5 Text first paragraph agreed 10 August 2021

6



## 1 **Item 4. Registration of SLD variant labels under variant TLDs to the same entity**

### 2 **A. Staff recommendation.**

3 Second-level variant labels under IDN variant TLDs {s1, s1v1, ...}.{t1, t1v1, ...} MUST be registered to the same entity.

4  
5 According to the IDN Implementation Guidelines, for second-level IDN variant labels that arise from a registration based  
6 on a second-level IDN table, all allocatable IDN variant labels in the set must only be allocated to the same entity or  
7 withheld for possible allocation only to that entity. This implies that all allocatable second-level labels {s1, s1v1, ...} under  
8 all allocated variant TLD labels {t1, t1v1, ...} must be allocated to Entity Z or else withheld for possible allocation only to  
9 Entity Z.

10

11

### 12 **B. GNSO SubPro Recommendation.**

13 Recommendation 25.7: For second-level variant labels that arise from a registration based on a second-level IDN table, all allocatable variant  
14 labels in the set must only be allocated to the same entity or withheld for possible allocation only to that entity (e.g., all allocatable second-  
15 level labels {s1, s1v1, ...} under all allocated variant TLD labels {t1, t1v1, ...}).

16

### 17 **C. ccPDP4 VM Subgroup Recommendation.**

18 **All variants of a Second-Level string registered under all delegated variant IDNccTLD strings MUST be registered to the**  
19 **same entity under all IDNccTLD variant strings.** IF IDNccTLD variant strings have been delegated, and for a second level  
20 string to be registered under an IDNccTLD string a set of allocatable variant second level strings can generated by applying  
21 the IDN Table for second level strings under the IDNccTLD string, THEN under all delegated IDNccTLD variant strings all the

1 set of allocatable variant second level strings MUST be either registered for one and the same entity or withheld for  
2 possible future registration by that same entity  
3

4 Transitional arrangement for discussion at later stage: If a variant IDNccTLD string is delegated after the IDNccTLD has  
5 become operational this recommendation also applies: under the newly delegated variant IDNccTLD string all allocatable  
6 variant second level strings of a registered second level string MUST be registered for one and the same entity or withheld  
7 for possible future registration for that entity.

#### 8 **D. Sub-group Findings and Discussion.**

9 Staff Note: Relevant sections in the ccPDP4 WG document, which includes refers to IDN Tables and the related policies and procedures.

10

11 Staff Note: Scope of ccNSO PDPs may be a limiting factor (Annex C ICANN Bylaws)

12

13 Staff Note: This recommendation is an extension of recommendation 3. Although the scope of the ccNSO PDP ( Annex C of the bylaws) may be  
14 limiting factor, by definition (see recommendation 1 above) a domains and its variants are one and the same. For reasons of security, stability  
15 and intertoperability of the DNS, one and the same domain can not be delegated or operated by two or more different entities.

16

17 Strong objection to include that recommendation in the policy (variants on the 2nd level)

18 Arguments ITEM 3 are just as relevant for this recommendation: see below

19

20 Language around a strong advice. To be revisited next time.

21 Need to determine what is the scope of the policy, what is not

22 Annex C limits the scope of the policy. At the same time, it is all in line with the security, stability and interoperability of the DNS.

23

24 Applying the same principle at second level requires a holistic (systematic) analysis, single TLD, variant TLDs, IDN or ASCII

25 Single IDNccTLD: annex C applies. Starting point is variants at Top Level

26 Selected IDNccTLD with variant IDNccTLD strings: Recommendation 3 and 4 are proposed for IDNccTLD.

27 Single ASCII ccTLD: out of scope of policy ccPDP4.

1 ASCII ccTLD, with variants?: out of scope of this policy.  
2  
3 Comment: Item 3 directly interferes with autonomy of ccTLDs to define policy for second level. Should be policy for TLD itself, and do not go further.  
4  
5 Response: Strange/grey area You play with the stability, security, interoperability.  
6 Sub-group should note this si an issue and WG has an ability to alert and improve the situation. If sub-group leaves it out now, there is no opportunity to  
7 add it later. Negotiating with purselves. Anticiaption is that there will be lots of discussion around this recommendation. We open possibilities.  
8  
9 Temperature of the room.  
10 You heard the argument. On the one hand , this could be over the line of the ccNSO policy remit as defined in Annex C. On the other hand, is the argument  
11 that variants are one and the same. Opening the possibility for diverging registrations would break that fundamental principle. Opportunity for the full  
12 group to chime in, and there will be a public comment too. You know there will be comments on this.  
13 Temperature check Alternative wording: change Must to Should = recommendation.  
14 Who would be in favor to change “must” to “should”? minority  
15 Leave it as it is? Majority  
16 Suggestion is to keep “must”.  
17 Note we are talking about variants. Single second level strings. Variants under the IDN variant ccTLD. Line item 11. This part still talks about variants at the  
18 2nd level. But in this recommendation we only talk about the top level.  
19 yes, following adjustments of line 10, following needs to be adjusted too  
20  
21  
22 Staff Note: Scope of ccNSO PDPs may be a limiting factor (Annex C ICANN Bylaws)  
23 Use language Expected, but not mandatory? However, note that by definition (second level) domains and their variants are one and the same domain. This  
24 is derived from actual definition of variants.  
25  
26 To considered the same by TLDs If the same string then same registrant, otherwise may causes security and stability issues.  
27  
28 “All allocatable variants” to become “any allocatable variants”  
29 All of them must be either registered for 1 and the same entity, or withheld for possible registration by that entity.  
30 “any” is indeed better.  
31 If they are not registered, they need to be withheld, correct? Yes  
32

1 **Item 4 A. Registration of SLD variant labels under IDNccTLD to the same entity**

2  
3 **ccPDP4 VM Subgroup Recommendation**

4 **All variants of a Second-Level string to be registered under a delegated IDNccTLD string MUST be registered to the same**  
5 **entity.** IF for a second level string to be registered under a delegated IDNccTLD string a set of allocatable variant second  
6 level strings can generated by applying the IDN Table for second level strings under the IDNccTLD string, THEN the set of  
7 allocatable variant second level strings MUST be either registered for one and the same entity or withheld for possible  
8 future registration by that entity

9  
10 **WG Findings and Comments**

11 We are discussing item 3 and 4. Variant TLDs, and variants of the 2nd level, in variant TLDs. there will be cases where there are variant labels  
12 at the 2nd level, in TLDs that will not have variants. So, we need consistency for all.

13  
14 Staff Note: Scope of ccNSO PDPs may be a limiting factor (Annex C ICANN Bylaws)

15 Use language Expected, but not mandatory? However, note that by definition (second level) domains and their variants are one and the same  
16 domain. This is derived from actual definition of variants.

17  
18 To considered the same by TLDs If the same string then same registrant, otherwise may causes security and stability issues.

19  
20 Question: what happens if two domain names which are deemed to be the same are delegated to two different entities?

21  
22 Same policies/difference. Re-iterated variants are delegated to same entities, however in practice the IDN table used may be differ from IDN  
23 table used for registration of SLDs under the TLD: apply different tables. Policy principle is the same.

24  
25 **Item 5. Harmonization of SLD IDN Tables**

1       **A. Staff recommendation.**

2       Second-level IDN tables offered under IDN variant TLDs MUST be harmonized.

3

4       Second-level IDN tables applicable for an IDN variant TLD set must be mutually coherent but not necessarily identical. For  
5       two second-level variant labels s1 and s1v1 under any TLD t1 generated using the applicable IDN table for t1, these must  
6       also be variant labels under TLD t1v1 if generated by the applicable IDN table for t1v1. This also implies that the complete  
7       set of second-level variant labels may not all be valid under all variant TLDs. For example, for the second level label s1v2,  
8       the domain name s1v2.t1 may be valid, but due to difference in IDN tables for variant TLDs, s1v2.t1v1 may not be valid.

9

10       **B. GNSO SubPro Recommendation.**

11       No corresponding recommendation under SubPro

12

13       **C. ccPDP4 VM Subgroup Recommendation.**

14       To be discussed as part of discussion Section 4.

15       **D. Sub-group Findings and Discussion.**

16

17

18

19       **Item 6. Not all variants across Variant TLDs need to be operational**

1       **A. Staff recommendation.**

2       IDN variant label allocatable or activated under IDN variant TLDs may not necessarily be the same.

3  
4       The set of allocatable or activated second-level variant labels may not be identical across the activated IDN variant TLDs.  
5       For two variant labels s1 and s1v1 which are allocatable under the active IDN variant TLDs t1 and t1v1, the label s1.t1 may  
6       be allocated or activated but s1.t1v1 may not be allocated or activated. Similarly, if s1v1.t1 is allocated or activated,  
7       s1v1.t1v1 may not be allocated or activated.

8  
9       **B. GNSO SubPro Recommendation.**

10       **Recommendation 25.8:** Second-level labels derived from Recommendation 25.6 or Recommendation 25.7 are not  
11       required to act, behave, or be perceived as identical.

12  
13       **C. ccPDP4 VM Subgroup Recommendation.**

14       **The sub-set of registered and sub-set of withheld for possible future second level variant IDN strings may vary across**  
15       **the IDNccTLD variant strings.** IF IDNccTLD variant strings have been delegated, and for a second level string to be  
16       registered under an IDNccTLD string a set of allocatable variant second level strings can generated by applying the IDN  
17       Table for second level strings under the IDNccTLD string, THEN the sub-set of registered allocatable variant second  
18       level strings and sub-set of allocatable variant second level strings the withheld for possible future registration may  
19       vary across the delegated IDNccTLD variant strings.

20  
21       **D. Sub-group Findings and Discussion.**

1 Staff Note: scope of ccNSO PDPs may be a limiting factor (Annex C ICANN Bylaws), to define this a policy requirement.  
2 At the same time, note that recommendations is cast in terms of advice or guidance, not as a requirement.  
3 Explanation needed: is intention of the original staff recommendation that not all variants of one and the same Second  
4 level strings, which according to recommendation 4 have been registered for the same entity under each variant IDNcTLD  
5 need to be operational? In other words: not all variants of a second level have to be “in use”?  
6  
7  
8

1 **Item 7. Back-end registry service providers for variant TLDs**

2 **A. Staff recommendation.**

3 The registry service providers MUST be the same for IDN variant TLDs.

4

5 For feasible and consistent implementation of these requirements, the same back-end registry service provider, if  
6 applicable, must be employed for operating all the activated IDN variant TLDs by the registry operator.

7

8 **B. GNSO SubPro Recommendation.**

9 **Recommendation 25.5:** IDN gTLDs identified as variant TLDs of already existing or applied for gTLDs will be allowed only if  
10 labels are allocated to the same entity and, when delegated, only if they have the same back-end registry service provider.  
11 This policy must be captured in relevant Registry Agreements.

12

13 **C. ccPDP4 VM Subgroup Recommendation.**

14 **All delegated variant IDNccTLD strings MUST be operated by the same entity.** If a specific IDNccTLD is operated by the  
15 IDNccTLD Manager all variants MUST be operated by the IDNccTLD Manager (IDNccTLD Manager is the entity or  
16 organisation listed in the IANA rootzone database as the ccTLD Manager for a specific [IDN]ccTLD). If a specific IDNccTLD is  
17 operated by a "back-end" registry service provider under arrangement with the IDNccTLD Manager, or will be operated by  
18 a "back-end" registry service provider under arrangement with the IDNccTLD Manager, that "back-end" service provider  
19 MUST operate all delegated variants of that specific IDNccTLD.

20 **D. Sub-group Findings and Discussion.** See discussion Item 2:



1 Question separate item 2 and 5? or combine under one item?

2 Include definition of back-end provider, if feasible

3 Adopted 27 July. 2021

4

5 Examples from IANA Root Zone Database to illustrate the definition of ccTLD Manager:

6 **Example 1 (ASCII ccTLD):**

7 **Delegation Record for .AC**

8 (Country-code top-level domain)

9

10 **ccTLD Manager**

11 Internet Computer Bureau Limited

12 c/o Sure (Ascension Island)

13 Georgetown

14 ASCN 1ZZ

15 Ascension Island

16

17 **Example 2 (IDNccTLD):**

18 **Delegation Record for .இலங்கை**

19 (Country-code top-level domain designated for two-letter country code LK)

20 **ccTLD Manager**

21 LK Domain Registry

22 c/o Computer Science and Engineering Department, University of Moratuwa

23 Moratuwa 10400

24 Sri Lanka

25

26 What is a ccTLD manager? An IDN ccTLD manager? How is it defined?

27 The term “ccTLD manager”. See future ICANN bylaws. Also included in the IANA root zone. As a result of the delegation process. Same process  
28 for ASCII and IDN ccTLDs.

29 Captured in the examples included.

1 Sri Lanka ccTLD manager. Captured the point Sarmad made regarding the definition of (same) entity. We should be consistent in the use of the  
2 term ccTLD manager.

3

4 Page 23. Hope this clarifies the intention of the recommendation.

5 Same entity could be either :

6 • the IDN ccTLD manager (see root zone)

7 • Back-end operator, under agreement with the ccTLD manager

8

9

1 **Item 8. Update of basic policies to take into account variant management recommendations**

2 **A. Staff recommendation.**

3 Existing policies and associated procedures for TLDs MUST be updated to accommodate the recommendations for IDN  
4 variant TLDs.

5

6 Existing policies and associated procedures must be adjusted to ensure that the recommendations above remain true  
7 under the functioning of gTLD and ccTLD policy and procedures.

8

9 **B. GNSO SubPro Recommendation.**

10 No corresponding SubPro recommendation

11

12 **C. ccPDP4 VM Subgroup Recommendation.**

13 **Staff note: See section 5 below. It includes the notes with questions from the staff paper.**

14

15 **D. Sub-group Findings and Discussion.**

16 IANA expressed hope that whatever parameters / constraints is arrived at by ccNSO policy is will be compatible with GNSO policy. IANA strives wherever  
17 possible to have common approaches across all TLDs, so if we can represent ccTLD variants and gTLD variants in the same manner in the root zone  
18 database that will certainly simplify things greatly.

19 Note the concern in second paragraph from IANA reply relates to item 8 and item 9.

20 Question: do variants follow the life-cycle of selected IDNccTLD string (of which they are derived)? Life-cycle: request for delegation, transfer (consented or  
21 after revocation), retirement. Should distinction be made between:

1  
2  
3  
4  
5  
6  
7  
8  
9  
10  
11  
12  
13  
14  
15  
16

- What about blocked variants?
- What about allocatable but not delegated variants strings?
- What about delegated variant strings?

Meeting 27 July 2021

Is this what was intended by the staff recommendation?

Response: Series of analysis in the staff recommendation. ccTLDs or implications on application process

E.g. how would variants impact the string? How do we define the same entity? Discussion at top level and also 2nd level. Useful to look at the top level.

Implications on dispute, after delegation, because of variants.

Collate items to be inserted into section 5 and item 9.

Define as part of section 5 of the paper. We start from the notes identified in the staff paper.

Group agrees to discuss them specifically for the overall selection

One abstention. No red marks

Revisited next time

1 **Item 9. All existing policies apply to IDN variants, unless specifically stated otherwise**

2 **A. Staff recommendation.**

3 All remaining existing TLD policies must apply to IDN variant TLDs, unless otherwise identified.

4

5 Unless adjusted due to recommendation 9 above or other reasons identified and agreed by the community, because each  
6 IDN variant TLD is also another TLD, all existing TLD policies and procedures for allocation and delegation remain  
7 applicable for IDN variant TLDs as well.

8

9 **B. GNSO SubPro Recommendation.**

10 No corresponding SubPro recommendation

11

12 **C. ccPDP4 VM Subgroup Recommendation.**

13 **All ccTLD related policies MUST apply to variant IDNccTLDs as well. However, specific requirements under a policy**  
14 **may vary for the selected IDN ccTLD string and its allocatable variants.**

15 If a selected IDNccTLD string is delegated under the existing relevant policy for delegation of ccTLD, the whole set of  
16 allocatable IDNccTLD variants SHALL be delegated, or withheld for future delegation to the same entity, on the basis of  
17 the request for delegation of the selected IDNccTLD string, unless otherwise foreseen under this policy.

18

19 If a selected IDNccTLD string is requested to be transferred in accordance with RFC1591 as interpreted by the FoI to  
20 another entity, the whole set of allocatable IDNccTLD strings SHALL be transferred or withheld for future delegation to

1 the same other entity, on the basis of the request for transfer of the selected IDNccTLD string, unless otherwise  
2 foreseen under this policy.

3  
4 If a selected IDNccTLD string or any of its variants is revoked in accordance with RFC1591 as interpreted by the FoI, all  
5 other allocated variant IDNccTLDs (delegated or withheld for future delegation) SHALL be revoked.

6  
7 If the selected IDNccTLD string should be retired as foreseen under this policy, all variant IDNccTLD strings SHALL be  
8 retired, unless otherwise foreseen under this policy.

9  
10  
11 Implementation of this and other recommendations pertaining to variant IDNccTLD strings is considered a matter of  
12 implementation.

13  
14 Text version 09

15 **All ccTLD related policies pertaining to (IDN)ccTLDs MUST apply to variant IDNccTLDs, unless specifically identified**  
16 **otherwise under the INDccTLD string selection policy.**

17 The set of allocatable variant strings that is generated from the selected IDNccTLD string by applying the RZ-LGR, MUST  
18 be delegated to the same IDNccTLD Manager or withheld for possible delegation to that IDNccTLD Manager. If a  
19 (selected?) IDNccTLD string is transferred, the full set of allocatable variant(s) of the IDNccTLD string, which is being  
20 transferred (whether delegated or withheld for future delegation) MUST be transferred to the same IDNccTLD  
21 Manager at the same time or withheld for future delegation to that IDNccTLD Manager, to which the IDNccTLD string is  
22 transferred. If a IDNccTLD string is revoked all allocated variant IDNccTLDs ( delegated or withheld for future  
23 delegation) MUST be revoked at the same time. If an IDNccTLD string shall be retired, all allocatable variants  
24 (delegated or withheld for delegation) MUST be retired, at the same time.

1 Implementation of this and other recommendations pertaining to variant IDNccTLD strings is considered a matter of  
2 implementation.  
3

#### 4 **D. Sub-group Findings and Discussion.**

5 Staff Note: scope of ccNSO PDPs may be a limiting factor (Annex C ICANN Bylaws. ccPDP4 is limited to the selection of IDN ccTLD strings. The  
6 basic premise is that delegation, transfer, revocation and retirement should be in accordance with existing policies. This is reflected in the  
7 ISSUE Report, and proposed policy proposals.  
8  
9

10 See discussion items 2 and 8 above.

11 Note: IANA expressed hope that whatever parameters / constraints is arrived at by ccNSO policy is will be compatible with GNSO policy. IANA  
12 strives wherever possible to have common approaches across all TLDs, so if we can represent ccTLD variants and gTLD variants in the same  
13 manner in the root zone database that will certainly simplify things greatly.  
14  
15  
16

17 Comment on version 09: variant TLDs are considered as far as the actual ccTLD strings. That is implied with this recommendation

18 Question: why?

19 General recommendation. Any variant TLD string is as good as a regular TLD string. Same rules should apply.

20 May need to specify the exception. Worth further discussion. Please raise concerns explicitly

21 Action: ask IANA staff what they expect/experience. Ask if they want to have exceptions.  
22  
23  
24

1 **Section 3. Overview of Recommendations on the Technical Utilization**  
2 **of RZ-LGR**

3

4 **Item 1. All TLD strings/labels to be processed using RZ-LGR**

5 **A. TSG Recommendation**

6 All TLD labels, IDN and ASCII labels, MUST be processed using the RZ-LGR.

7

8 Lowercase alphabetic ASCII labels are, as a practical matter, a subset of the Latin script labels defined by RZ-LGR;  
9 therefore, these ASCII Labels must be subject to RZ-LGR processing to determine their cross-script variant labels, e.g. with  
10 Armenian, Cyrillic, Greek, and other applicable scripts. Consequently, GNSO and ccNSO should incorporate the use of RZ-  
11 LGR into their TLD application processes accordingly and in a consistent manner.

12

13 **B. GNSO SubPro Recommendation.**

14 **Recommendation 25.2:** Compliance with Root Zone Label Generation Rules (RZ-LGR, RZ-LGR-2, and any future RZ-LGR  
15 rules sets) must be required for the generation of TLDs and variants labels, including the determination of whether the  
16 label is blocked or allocatable. IDN TLDs must comply with IDNA2008 (RFCs 5890-5895) or its successor(s). To the extent  
17 possible, and consistent with Implementation Guidance 26.10, algorithmic checking of TLDs should be utilized.

18



1     **C. ccPDP4 VM Subgroup Recommendation.**

2     **All TLD labels, IDN and ASCII labels, MUST be processed using the RZ-LGR.** Lowercase alphabetic ASCII labels are, as a  
3     practical matter, a subset of the Latin script labels defined by RZ-LGR; therefore, these ASCII Labels must be subject to  
4     RZ-LGR processing to determine their cross-script variant labels, e.g. with Armenian, Cyrillic, Greek, and other  
5     applicable scripts. Consequently, the use of RZ-LGR should be incorporated into the (IDN)ccTLD application processes  
6     accordingly and in a consistent manner.

7

8     **D. Sub-group Findings and Discussion.**

9     Staff Comments: As ASCII ccTLD application process is a matter out of scope of this ccPDP. It is a matter that is most  
10    likely first and foremost operational and a matter of the IFO and IANA Naming Function. Further impact and effort  
11    analyses would be required to understand the full breadth and consequences of a recommendation in this area.

12    Staff Comment: What if a script of writing system has not yet been integrated in RZ -LGR and a selected string is  
13    requested in such a writing system or script?

14    Possible scenario:

15    1. Not allowed i.e., not processed & await RZ-LGR for script or writing system

16    2. Only Selected string processed (as under Fast Track Process), no variant identified/generated

17

1 **Item 2**

2 **A. TSG Recommendation**

3 For the scripts and writing systems which have been integrated into the RZ-LGR, the RZ-LGR must be the only source for  
4 processing the following cases:

- 5 • Validate an applied-for TLD label and determine its variant labels with corresponding dispositions
- 6 • Calculate variant labels, and corresponding disposition values, for each one of the already allocated or delegated TLD  
7 labels
- 8 • Calculate variant labels, and corresponding disposition values, for each one of the reserved TLD labels

9

10 **B. GNSO SubPro Recommendation.**

11 **Recommendation 25.2:** Compliance with Root Zone Label Generation Rules (RZ-LGR, RZ-LGR-2, and any future RZ-LGR  
12 rules sets) must be required for the generation of TLDs and variants labels, including the determination of whether the  
13 label is blocked or allocatable. IDN TLDs must comply with IDNA2008 (RFCs 5890-5895) or its successor(s). To the extent  
14 possible, and consistent with Implementation Guidance 26.10, algorithmic checking of TLDs should be utilized.

15

16 **C. ccPDP4 VM Subgroup Recommendation.**

17 Suggested text: For the scripts and writing systems which have been integrated into the RZ-LGR, the RZ-LGR must be the  
18 only source for processing the following cases:

- 1 • Validate an applied-for TLD string and determine its variant string(s) with corresponding dispositions
- 2 • Calculate variant strings, and corresponding disposition values, for each one of the already allocated and delegated TLD
- 3 Strings
- 4 ~~• Calculate variant labels, and corresponding disposition values, for each one of the reserved TLD labels~~

5

#### 6 **D. Sub-group Findings and Discussion.**

7 Staff Note: Currently IDNccTLD strings are only delegated. No allocatable IDNccTLD Variant Strings have been identified  
8 Neither under the Fast-Track process, nor under the proposed policy (IDN)ccTLD strings are not reserved.

9

### 10 **Item 3. Need to address any existing possible deviations from the calculation of the RZ-LGR**

#### 11 **A. TSG Recommendation**

12 GNSO and ccNSO should work collaboratively and consider their respective policy, procedure and/or contract changes to  
13 address any existing possible deviations from the calculation of the RZ-LGR:

- 14 • Delegated TLDs.
- 15 • Self-identified “variant” TLDs.

16

17 **3.1. Delegated TLDs:** These are cases that have occurred under special circumstances in which labels generally deemed as  
18 the same (i.e. variant TLDs under RZ-LGR) were previously delegated as independent TLDs, albeit with special  
19 considerations (e.g. synchronized TLDs). Any such variations should be considered for alignment with RZ-LGR.

20

1 **3.2. Self-identified “variant” TLDs:** Historically IDN TLD applications, for gTLDs and ccTLDs, have asked the applicant to  
2 identify and list any variant labels (based on their own calculations) corresponding to the applied-for string. These self-  
3 identified “variant” labels may or may not conform to the RZ-LGR once implemented. The self-identified “variant” labels  
4 which are also variant labels based on RZ-LGR will need to be assigned a variant disposition based on RZLGR calculation.  
5 Further, self-identified “variant” labels that are not variant labels based on the RZ-LGR definition should not be considered  
6 as variant TLD labels and it needs to be determined on how to address such labels previously identified by the applicants.  
7  
8 GNSO and ccNSO must consider a resolution of such outstanding cases that conforms to the LGR Procedure and RZ-LGR  
9 calculations.

10

11 **B. GNSO SubPro Recommendation**

12 No corresponding SubPro recommendations

13

14 **C. ccPDP4 VM Subgroup recommendation**

15

16 **D. Subgroup Findings and Discussion**

17 Staff Note: Transitional Arrangement to be developed

18

19 **Item 4. RZ-LGR Validation**

1 **TSG Recommendation**

2 For an applied-for TLD label whose script(s) are supported by the applicable version of the RZ-LGR, the RZ-LGR will  
3 calculate either of two values: “valid” or “invalid”. Consequently, an applied-for TLD that is determined “valid” may  
4 proceed with the subsequent evaluation process, whereas an applied-for TLD that is determined “invalid” must not  
5 proceed, because it did not pass the validation by RZ-LGR.

6  
7 Recommendation 4 describes the cases in which **an applied-for label, whose script is supported by the RZ-LGR, is**  
8 **determined to be “invalid”**. The SG defers to the GNSO and ccNSO to **determine the process to deal with these cases**  
9 (e.g. suspend or reject the applied-for TLD) as this is considered a matter of policy or procedure. While there may be  
10 merits for either choice, the SG provides items 4.1 to 4.4 as technical input for community’s consideration, to help address  
11 SSAC’s SAC060 recommendation: "ICANN must maintain a secure, stable, and objective process to resolve cases in which  
12 some members of the community (e.g., an applicant for a TLD) do not agree with the result of the LGR calculations."

13  
14 Consequently, an applied-for TLD that is determined “valid” may proceed with the subsequent evaluation process,  
15 whereas an applied-for TLD that is determined “invalid” must not proceed, because it did not pass the validation by RZ-  
16 LGR. While policy needs to determine how an “invalid” label should be dealt with (Recommendation 2 in SAC060), the  
17 following technical input should be considered by the relevant policy development process:

18  
19 **4.1 Conformance with IDNA2008.** An applied-for label must be in Normalization Form C7 and must conform to IDNA2008.

20  
21 **4.2. Conformance with LGR Procedure.** Policy or procedure must not override the results of the RZ-LGR. That is, policy or  
22 procedure alone cannot turn an “invalid” label into a “valid” label, or vice-versa. Doing so would invalidate the entire  
23 RZLGR. Any change to the RZ-LGR (e.g. repertoire, variant rules or WLEs) must be undertaken using the process stipulated  
24 in the LGR Procedure.

25  
26 **4.3. Script LGR can be updated, if justified, using the LGR Procedure.** In general, GPs make design choices based on

1 current knowledge and available information. These choices determine the code point repertoire and its context rules, the  
2 whole-label evaluation rules and variant sets. If and when there is new information available, the LGR Procedure defines  
3 the process to update the RZLGR9.

4

5 **4.4. Re-validation of applied-for label is possible.** The applied-for TLD label may be re-validated when a new RZ-LGR  
6 version becomes available.

7

8 **GNSO SubPro Recommendation**  
9 **[Regarding the remedy element]**

10

11 **Recommendation 32.1:** The Working Group recommends that ICANN establish a mechanism that allows specific parties to  
12 challenge or appeal certain types of actions or inactions that appear to be inconsistent with the Applicant Guidebook.

13

14 The new substantive challenge/appeal mechanism is not a substitute or replacement for the accountability mechanisms in  
15 the ICANN Bylaws that may be invoked to determine whether ICANN staff or Board violated the Bylaws by making or not  
16 making a certain decision. Implementation of this mechanism must not conflict with, be inconsistent with, or impinge  
17 access to accountability mechanisms under the ICANN Bylaws.

18

19 The Working Group recommends that the limited challenge/appeal mechanism applies to the following types of  
20 evaluations and formal objections decisions:

21

22 **(Specifically, likely the DNS Stability aspect of evaluation/challenge procedures)**

23

24 **ccPDP4 VM Subgroup recommendation**

25

26 **Subgroup Findings and Discussion**

1

2 **Item 5. Should RZ-LGR for script be required?**

3 **TSG Recommendation**

4 For an applied-for TLD label whose script is not yet supported by the applicable version of the RZ-LGR, the application  
5 should not proceed until the relevant script is integrated into the RZ-LGR. It is implied that the application should remain  
6 on-hold (or other appropriate status) until the relevant script is integrated into the RZ-LGR.

7

8 **GNSO SubPro Recommendation**

9 **Implementation Guidance 25.3:** If a script is not yet integrated into the RZ-LGR, applicants should be able to apply for a  
10 string in that script, and it should be processed up to but not including contracting. Applicants under such circumstances  
11 should be warned of the possibility that the applied-for string may never be delegated and they will be responsible for any  
12 additional evaluation costs

13

14 **ccPDP4 VM Subgroup recommendation**

15

16 **Subgroup Findings and Discussion**

17 See question on Recommendation 1 staff paper. Under Fast Track process an application for a string could be submitted  
18 and ultimately delegated without requirement that relevant script is integrated into the RZ-LGR. Note that the issue of  
19 variants or variant management was not addressed for the Fast Track

20

21

22 **Item 5.**

- 1 TSG Recommendation
- 2
- 3 GNSO SubPro Recommendation
- 4
- 5 ccPDP4 VM Subgroup recommendation
- 6
- 7 Subgroup Findings and Discussion
- 8

9 **Item 6. Limiting number of delegated variants**

10 **TSG Recommendation**

11 SSAC advises in SAC060 that too many variant labels should not be delegated. The SG considers that the matter on limiting  
12 the number of allocatable variant labels to be a policy matter.

13

14 **GNSO SubPro Recommendation**

15 No corresponding SubPro recommendations

16

17 **ccPDP4 VM Subgroup recommendation**

18

19 **Subgroup Findings and Discussion**

20 Staff question: should meaningfulness criteria also apply to variants?

21

22 If v1-5 are all variants of or include a variant of t1t2, should v1-5 meet all meaningfulness criteria to be eligible for  
23 delegation? What happens if only v1 and v2 meet meaningfulness criteria?

24



1 **Item 7. Need to grandfather existing TLDs after revision of RZ-LGR**

2 **TSG Recommendation**

3 It is expected that the RZ-LGR be revised throughout its lifecycle, either as a result of a new script LGR being integrated or  
4 a revision of an existing script LGR being adopted. There may be cases where a script LGR does not support an existing  
5 TLD. In such cases, it is possible that the existing TLD(s) may need to be grandfathered.

6

7 **GNSO SubPro Recommendation**

8 No corresponding SubPro recommendations

9

10 **ccPDP4 VM Subgroup recommendation**

11

12 **Subgroup Findings and Discussion**

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# 1 Section 4. IDN Tables: use cases and requirements

2 Background material for consideration by VM

- 3 • Recommendation 4 and 5 staff paper.
- 4 • Text and use cases defined in original Board Report. See section 5.1.2, Section 5.2.1 and 5.2.2 of ccPDP4-WG proposed sections 5-9

5 Additional background material:

- 6 • <https://www.iana.org/domains/idn-tables>
- 7 • <https://www.iana.org/help/idn-repository-procedure>
- 8 • <https://www.icann.org/resources/pages/idn-guidelines-2011-09-02-en>

9  
10 [IDN Tables submitted as part of Fast Track project. In some Fast Track process. Used by IDN ccTLD managers, earlier IDN used for variants for](#)  
11 [the ccTLD label, also how as defined. Different use cases. Fast Track for second level application](#)  
12  
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# 1 Section 5. Review of IDNccTLD string selection process

2 The IDN string selection PROCESS as been reviewed and updated (Status July 2021) by the full WG, will need to be  
3 reviewed by the sub-working group to suggest changes to accommodate the recommendations of the sub-group under  
4 section 2, 3 and 4 above.

5  
6 IDN and ASCII characters as variants of the selected IDNccTLD string. Not all variants are IDNs, some may be ASCII, if ASCII  
7 how does this relate general requirement ( at least one non-ASCII character). Is there a potential hierarchy of  
8 requirements? uncover requirements Flag for full working group  
9 If in principle all Variants of IDNccTLD are allowed to be delegated -> ASCII string. What if ASCII string already exists?

10  
11 Note: related to discussion section 3 item 6. SSAC recommendation to minimize number of delegated strings. Potential  
12 unnecessary burden if to many variants are all delegated. Potential solution is to limit the number allowable (delgatable )  
13 IDNccTLDs strings to variant IDNccTLD strings that are meaningful.

14

15

## 16 Questions Issues Identified in Staff Paper

### 17 Identified issues to date

18

19 The report on [IDN Variant TLD Implementation: Recommendations and Analysis](#) raises the following items for the consideration of ccNSO in  
20 Section 3 – Analysis of Recommendations:

21

22 (pg. 8)

23 1. *Update policies and procedures to ensure that the definition of variant TLDs depends exclusively on the RZ-LGR.*

### 24 **Sub group Findings and Comments**

25 **Staff Note:** under discussion. To be suggested by VM Subgroup.

1 Main group has not yet discussed variants. That is what this group is doing. This group needs to review the results by the full group, and  
2 come up with recommendations where that proposed policy needs to change.  
3

4 Main tasks by sub-group:

- 5 • First come up with recommendations on VM itself
- 6 • Review the proposals by the full WG and where needed come up with recommendations

7 2 step-process. When we discussed this in the main group, to include RZ-LGR to validate the main string, it was suggested to take  
8 this up by VM-subgroup. But this group focuses mainly on other aspects. Should we say something about the original string also  
9 being validated through RZ-LGR

10 Note section 3 item 1 still needs to be discussed.

11 Suppose there is no support for a particular script

12 Rephrase section 1. Idn cctlds as a sub-question. Definition of idn ccTLDs depends exclusively on RZ-LGR.

13 Note that these questions were drawn in context from variant TLDs. Copied from staff paper. Limited in scope. To be included as  
14 item 1a. To be revisited. All IDN ccTLD strings should depend exclusively on RZ-LGR to be valid

15 Original policy. We parked the conversation. RZ-LGR is now the one and only IDN table to select the IDN ccTLD string. Validation,  
16 and then to calculate the variant labels of the applied for string. Needs to be included as one of the main questions, under section  
17 4. Use case for IDN tables. Separate discussion item

18

19 2. *Update policies and procedures to incorporate the “same entity” rule for a given label beneath two variant TLDs.*

20 Staff Note: See Section 2 Recommendation 3 and 4 above

21 3. *Update policies and procedures to set a functional definition for “same entity” [for the second level] in the absence of EPP contact*  
22 *objects or associated ROIDs. (The action might be that this is not a ccNSO responsibility, but one taken by each registry instead.)*

1 Staff Note: Generic Same entity definition is beyond scope, and very dependent on specific registration policies. Example: some (IDN)  
2 ccTLD will allow registration by non-national individuals or legal entities, whilst others only allow registration by legal entity, which was  
3 established under specific relevant laws for the Territory.

4  
5 (pp. 11-12)

- 6 4. *Update Final Implementation Plan (FIP) of the Fast Track Process and subsequent IDN ccPDP, including update of Sections 3 and 4 of FIP*  
7 *(see discussion above); may include new draft letter between ccTLD managers and ICANN*

8 Staff Note: The ccNSO has requested standstill of evolution of the Fast-Track process. See letter ccNSO to the ICANN board of Directors  
9 <https://ccnso.icann.org/sites/default/files/field-attached/sataki-to-chalaby-04sep19-en.pdf> and response from the chair of the Board:  
10 <https://www.icann.org/en/system/files/correspondence/chalaby-to-sataki-31oct19-en.pdf>

11  
12 Agreed approach: Evolution of the Fast-Track Process, if at all, should be limited to issues that cause a demonstrable threat to the  
13 security and stability of the DNS, can only be addressed through an amendment of the Fast-Track Process, and require resolution before  
14 completion and implementation of the envisioned ccPDP 4.

15 Question: Is suggested update an issue that causes demonstrable threat to the security and stability of the DNS, can only be addressed  
16 through an amendment of the Fast-Track Process? Also, in light that the draft letters or AFs as suggested in FIP have hardly been in use.

- 17  
18 5. *Update domain transfer and update process to reflect inter-TLD linkages due to variants and the need to enforce the “same entity” rule*  
19 *(e.g. that s1.t1 and s1.v1t1 may have the same contact ROID after a <domainUpdate>).*

20 Staff Note: Explanation needed

21 What is meant is an update to a 2nd level domain, gets transferred, etc.

22 Dennis: The original policy talks about the IDN table used to select a ccTLD IDN string ... in this working group we are considering using  
23 the RZ-LGR as the one and only IDN Table used by every single applicant of an IDN ccTLD string. lifecycle of domain names to maintain  
24 the same entity principle?

25 Bart: if an IDN ccTLD manager agrees that the variant is delegated, all successive actions around that string should follow

26 Number 5 talks about 2nd level. Should be similar as for top level domains.

27 Suggests to include a staff note to reflect that understanding. Seems logical, if the sub group and full group agree with item 4 and 4.a.

28 However, note this is really looking at the policies of the ccTLD Managers. At a minimum suggest that it is advised.

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6. *Update policies and procedures to allow the lists of reserved names and the strings for inappropriate delegation to reflect any variants.*

Staff Note: To date there is no list of reserved names and strings for inappropriate delegation under a ccTLD policy.

7. *Update ccTLD redelegation policy to reflect “same entity” constraint on variant TLDs.*

Staff Note: ccTLD transfer policy is based on RFC 1591 as interpreted by FoI. This particular point is addressed in Section 2 point 9.

Rationale again for inclusion: the Selected IDNccTLD string and its variants are one and the same.

(pg. 14)

8. *Update policies and procedures to incorporate variant label states and transitions between them.*

Staff note:

The label states that have been identified are:

- Delegated
- Withheld-same-entity: Withheld-same-entity: A Withheld label is set aside for possible allocation only to the same entity of the other labels in the variant set.
- Blocked
- Allocated
- Rejected: A Rejected string is set aside on administrative grounds outside the ordinary LGR procedures. Other terms used “Not Approved” and “Will Not Proceed”. Strings that cannot be allocated on visual confusability grounds, based on the string similarity review step in the TLD application process, are also Rejected.

Question: are these the only relevant states with respect to variant IDNccTLD? Is selected IDNccTLD string relevant? How does selected IDNccTLD string relate to its variants? See also questions section 3.

(pg. 15)

9. *Update policies and procedures for filing IDN tables using the LGR format specified in RFC 7940 as per IDN Guidelines 4.0.*

Staff Note: This item is addressed under section 4.

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*10. Update policies and procedures to require harmonized IDN tables across IDN variant TLDs to produce a consistent set of second-level variant labels. Also, require second level variant labels to be allocated to the same registrant under all variant TLDs.*

Staff Note: This item will be addressed under section 4. With respect to second point see Section 2 recommendations 3 and 4 & 4A

*11. Those TLDs using EPP may need to create an enhancement (either a protocol modification, a standard message, or a standard extension) that permits expressing response messages for unavailability of an unallocated label due to variants. Work with the technical community to make this enhancement.*

Staff Note: Should this be a recommendation from the WG to IDNcTLD Managers?

To be discussed whether the WG needs to go as far as number 11 suggests. This goes deep into the business of the IDN ccTLD manager. Recognising that it might be an issue, there could be an advise which is not a hard requirement, but use “may/should” type of language.

(pg. 21)

*12. Update the string similarity guidelines for TLDs and their variant labels.*

Staff Note: Confusing Similarity of string is topic to be discussed and worked by 3<sup>rd</sup> sub-group

(pg. 23)

*13. Review string similarity procedure to address decorated two-character Latin labels.*

Staff Note: Confusing Similarity of string is topic to be discussed and worked by 3<sup>rd</sup> sub-group

# 1 Section 6. Issues for discussion with full working group

2 Note: 2 issues

- 3 • Membership ccNSO. Related to the iana root zone DB. if listed as a ccTLD manager, you are listed as such. Then you  
4 can apply for ccNSO membership. E.g. NIXI manages 22 ccTLDs including the IDN ccTLDs and .in. You can imagine  
5 that if there would be variants as well, the number of entries for NIXI in the root zone would increase.  
6 Requirements for ccNSO membership. The ccns0 had to deal with this: one vote per country. Implications and  
7 impact on the membership of the ccNSO

8 Q: is this for this WG to discuss? Response: it is a consequence for introducing variants. May need to be flagged as  
9 something for the broad group to discuss

10

11 Scope of Variant Management recommendations:

12 Temperature of the room.

13 You heard the argument. On the one hand , this could be over the line of the ccNSO policy remit as defined in Annex C. On  
14 the other hand, is the argument that variants are one and the same. Opening the possibility for diverging registrations  
15 would break that fundamental principle. Opportunity for the full group to chime in, and there will be a public comment  
16 too. You know there will be comments on this.

17 Temperature check Alternative wording: change “Must” in section 2, item 3 and 4 to “Should” (strong advise, expected  
18 not mandatory recommendation).

19 Who would be in favour to change “must” to “should”? Minority

20 Leave it as it is? Majority

21 Suggestion is to keep “must”.

22 Note we are talking about variants. Single second level strings. Variants under the IDN variant ccTLD. Line item 11. This  
23 part still talks about variants at the 2nd level. But in this recommendation we only talk about the top level. However this is



1 top ensure the consistency across the delegated variants of a specific IDNccTLD, which is also required for a more  
2 seamless transfer, revocation and retirement of (IDN)ccTLDs.

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