

1 **Sub-group Findings introduction Variants IDNccTLDs**

2

3 Version 1

4 12 November 2021

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1	Table of Contents	
2	Section 1. Introduction	4
3	Section 2. Overview IDN Variant TLD Recommendations	7
4	Item 1. Defining IDN Variant TLDs	7
5	Item 2. Allocation of TLD to the same entity	8
6	Item 3. Allocation of SLD to the same entity	13
7	Item 4. Registration of SLD variant labels under variant TLDs to the same entity	16
8	Item 5. Harmonization of SLD IDN Tables	19
9	Item 6. Not all variants across Variant TLDs need to be operational	20
10	Item 7. Back-end registry service providers for variant TLDs	22
11	Item 8. Update of basic policies to take into account variant management recommendations	24
12	Item 9. All existing policies apply to IDN variants, unless specifically stated otherwise	25
13	Section 3. Overview of Recommendations on the Technical Utilization of RZ-LGR	28
14	Item 1. All TLD strings/labels to be processed using RZ-LGR	28
15	Item 2	32
16	Item 3. Need to address any existing possible deviations from the calculation of the RZ-LGR	33
17	Item 4. RZ-LGR Validation	35
18	Item 5. Should RZ-LGR for script be required?	37
19	Item 5	44
20	Item 6. Limiting number of delegated variants	38
21	Item 7. Need to grandfather existing TLDs after revision of RZ-LGR	39
22	Section 4. IDN Tables: use cases and requirements	40

1	<i>Section 5. Review of IDNccTLD string selection process</i>	<i>42</i>
2	<i>Section 6. Issues for discussion with full working group</i>	<i>51</i>
3		
4		
5		
6		

1 Section 1. Introduction

2 Version 1

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

18
19 Following the discussion of section 5. The questions around VM shape the policy and originate from a staff papers. Going
20 forward, the group to consider what is relevant for the policy, and should be adopted therefore and what is relevant but is
21 considered out of the policy scope and could be included as advise to cctld managers, with a link to background material
22 regarding the topic. The proposal is to first decide whether a topic/issue is a policy matter or not, if not, whether the WG

- 1 should /could include a reference as responsibility for the cctld manager. The goal is to ensure that a ccTLD Manager
- 2 involved in IDNs is aware of issues, risks and potential solutions to address the issues or mitigate the risks.
- 3

1 Section 2. Overview IDN Variant TLD Recommendations

2 Item 1. Defining IDN Variant TLDs

3 A. ccPDP4 VM Subgroup Recommendation.

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

8 B. Sub-group Findings and Discussion.

9 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
10 2). Looking at the SUBPro recommendation, distinction between blocked and allocatable
11 Clarify the difference? Discussed

12
13 Question check if understood correctly. If a IDNccTLD is requested i.e. meets criteria of meaningfulness and IDNA 2008, sufficient or also required that.
14 Blocked and allocatable. Difference: allocatable applied potential strings

15
16 RZ-LGR Designed tool string / label. Output set contain all variants. Blocked maximized, variants
17 Note discussion on requirements for IDN ccTLD string: Technical criteria in general apply.

18
19 IDN TLDs strings must comply with IDNA2008 (RFCs 5890-5895) or its successor(s).
20
21

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

2 **A. ccPDP4 VM Subgroup Recommendation.**

3 **IDN variant TLDs {T1, T1V1, ..,T1Vx} MUST be allocated to same entity.** The set of allocatable variant strings that is
4 generated from the selected IDNccTLD string by applying the RZ-LGR, MUST be allocated to one and the same entity, the
5 requestor (the entity that submits the selected IDNccTLD string), delegated to one and the same entity, the IDN ccTLD
6 Manager) or withheld for possible future delegation to the IDNccTLD Manager. In other words, for a selected top-level
7 label T1, its allocatable variant label(s) T1V1,..., T1Vx shall only be allocated to the IDN ccTLD requestor, or - after the
8 delegation process for the selected IDNccTLD string has been initiated - delegated to the same IDNccTLD Manager or
9 withheld for possible delegation to that IDNccTLD Manager.

10

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

15 **Agreed text 27 July 2021**

16 **B. Sub-group Findings and Discussion.**

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

18 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
19 hierarchy of requirements? uncover requirements Flag for full working group

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

21

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

25

1 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
2 this the idea?
3
4 Note that some ccTLD Managers have an arrangement with a back-end provider. Should a similar, mandatory arrangement be provided as a requirement
5 for delegation of variants?
6
7 Should Back-end registry service provider be defined as term?
8
9 ccNSO Institutional Issue. Assuming variants will be delegated to the same ccTLD Manager, should the ccTLD Manager for each, and every variant of the
10 selected IDNccTLD string be treated as an individual ccTLD Manager, and may therefore become member of the ccNSO for each, and every variant
11 IDNccTLD?
12
13 Description staff recommendation, the word “arise” is used. If an organisational entity submits an IDN ccTLD string then RZ-LGR is applied, and variants
14 occur. If they are allocatable, what happens? Bundled with the selected string?
15 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
16 applicant for potentially use.
17
18 Q: Does the entity need to request the delegation of the variant strings as well? Is that done automatically?
19 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.
20 But the delegation is not an automatic step.
21
22 Note: In principle delegation follows the IANA delegation process and at the request of the future IDN ccTD manager.
23
24 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
25 automatically. May or not fulfill the evaluation criteria for the strings.
26 Q!: are the meaningfulness criteria still valid for variants?
27
28 Response: yes, but not only. Technical criteria too. Multiple factors.
29
30 Question: criteria as developed by the main group should apply to the variant as well?
31 Response: see original recommendations from the staff report. Recommendation 9: all existing processes should apply, unless there is an explicit exception.
32 Same rigour. Original process applies to each variant, unless there are documented exceptions by the WG. Response : let’s discuss when we reach
33 recommendation 9 from the staff paper.

1
2 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?
3 Registry operators in the gTLD world. Entity that is the TLD manager
4
5 Q: regarding the backend providers, should we include anything here? Response: IDNccTLDs with high level of complexity. Limited practice in this area. Be
6 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
7 the full WG.
8 Mechanism where we strongly urge, support and almost enforce IDNccTLD managers to adhere to this basic recommendation. ccTLD-world does not have a
9 registry Agreement. If we suggest to leave this up to implementation, there will be a lot of push-back.
10 Q: what is backend provider? The technical support provider (TSP)? R: yes. Example AUDA. clear line between the policy-setting and administrative
11 organisation on the one hand, and the operational and technical organisation.
12 With respect to “back-end service providers” see also item 7 below
13 Q: Suppose the backend is still the same, how will this recommendation become invalid?
14 Response: If you have multiple variants under management, the entity could assign the various variants to backends among several parties. Situation you
15 want to avoid. To ensure coherent management of variants.
16 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
17 differences. Should be avoided for TLDs that are variants of each other.
18
19 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
20 meeting 27 June 2021
21
22 Next meeting: come up with a mechanism that would ensure this, to the extent possible.
23 Q: once variants are delegated, will they be listed in the root zone DB as a separate entry?
24 Response: the variant is an annotation to the string. Entry in the root zone, similar record as any other entry. Some constraints.
25
26 Note: suggestion to go back to IANA, and ask them for input.
27 Response: Currently, IANA has NOT defined how it will handle variants. However please note the following in response:
28 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
29 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
30 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
31 not need to be adjusted and treat each variant as a TLD with no special consideration for them being variants.
32

1 IANA expressed hope that whatever parameters / constraints is arrived at by ccNSO policy is will be compatible with GNSO policy. IANA strives wherever
2 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
3 database that will certainly simplify things greatly.

4
5 Note the concern in second paragraph form IANA relates to item 8 and item 9.

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

- 8 • What about blocked variants?
- 9 • What about allocatable but not delegated variants strings?
- 10 • What about delegated variant strings?

11
12 Note: 2 issues

- 13 • 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
14 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
15 entries for NIXI in the root zone would increase. Requirements for ccNSO membership. The ccNSO had to deal with this: one vote per country.
16 Implications and impact on the membership of the ccNSO

17 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
18 discuss (included in section 5)

19
20 ccPDP3 retirement Policy recommendations on retirement are in the decision-making phase. One of the subgroups of ccPDP4 deals with the de-selection of
21 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?

22
23 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
24 (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.

25
26 Response: consistency principle to apply on transfer, revocation etc as well. That is the implication. Consistent with how things happen now.

27 Note comment above, IANA remarks

28
29 Use term “ASSOCIATED” IDNccTLDs, to describe the set of selected IDNccTLD string (S1) and its variants (S1V1, ...S1,Vx) ?

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

1 Staff Note: Note that according to the IDNccTLD process the selection process ends with publication of the validated string(s). After validation the IDNccTLD
2 must be delegated in accordance with the ccTLD delegation process. Also note that the selected IDNccTLD string is requested by the reguestor (the entity
3 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
4 IDNccTLD Manager). For example , a government agency or related entity , could request the IDnccTLD string, whilts the (ASCII) ccTLD Manager, could
5 request the delegation of the IDNccTLD string (and [some of the] allocatable variant).
6
7

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

2 **A. ccPDP4 VM Subgroup Recommendation.**

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

7
8 Transitional arrangement to be discussed at later stage: If a variant IDNccTLD string is delegated after the IDNccTLD has
9 become operational this recommendation also applies: under the newly delegated variant IDNccTLD string an already
10 registered second level string under another variant IDNccTLD variant string MUST be registered or withheld for future
11 registration for the same entity.

12
13 Note and comment. By definition (see recommendation 1 above) a domain and its variants are one and the same. For
14 reasons of security, stability and interoperability of the DNS, one and the same domain can not be delegated or operated
15 by two or more different entities.

16

17 **B. Sub-group Findings and Discussion.**

18 From 27 July discussion:

19 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.
20 different to gTLD environment.

21

22 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.

23

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

1 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
2 add it later. Negotiating with ourselves. Anticipation is that there will be lots of discussion around this recommendation. We open possibilities.
3
4 Temperature of the room.
5 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
6 that variants are one and the same. Opening the possibility for diverging registrations would break that fundamental principle. Opportunity for the full
7 group to chime in, and there will be a public comment too. You know there will be comments on this.
8 Temperature check Alternative wording: change Must to Should = recommendation.
9 Who would be in favor to change "must" to "should"? minority
10 Leave it as it is? Majority
11 Suggestion is to keep "must".
12 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
13 2nd level. But in this recommendation we only talk about the top level.
14 Following adjustments of line 10, following needs to be adjusted too
15
16
17 Staff Note: Scope of ccNSO PDPs may be a limiting factor (Annex C ICANN Bylaws)
18 Use language Expected, but not mandatory? However, note that by definition (second level) domains and their variants are one and the same domain. This
19 is derived from actual definition of variants.
20
21 To considered the same by TLDs If the same string then same registrant, otherwise may causes security and stability issues.
22
23 Question: what happens if two domain names which are deemed to be the same are delegated to two different entities?
24
25 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
26 registration of SLDs under the TLD: apply different tables. Policy principle is the same.
27
28 From the Fast Track application form:
29 **By signing and submitting this request the Requestor commits to** TLD operations that will secure and enhance the stability and interoperability of the
30 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
31 a stable and secure Internet DNS. The Requestor understands that ICANN reserves the right to take actions necessary to protect the security, stability and
32 interoperability of the global DNS.

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

- 2 a. The IDN ccTLD manager shall establish, operate and maintain the authoritative name servers for the requested string in a stable and secure
3 manner, adequate to resolve names within the requested string by users throughout the Internet and in compliance with Relevant Applicable
4 Standards subject to and within the limits of relevant national law and national public policy. Relevant Applicable Standards are standards-track or
5 best current practice RFCs sponsored by the Internet Engineering Task Force;
- 6 b. IDN domain names are to be registered in accordance with a publicly available registration policy that shall comply on an ongoing basis with
7 relevant applicable standards to IDNs, such as the IDNA Protocol, and with the IDN guidelines as updated and published from time to time on
8 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,
9 adherence to RFCs 3490, 3491, 3492, 3454 and their successors;
- 10 c. The IDN ccTLD manager should not use DNS redirection and synthesized DNSresponses within any level of the registry; and
- 11 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
12 a serious concern regarding the stability, security or interoperability of the Internet's Domain NameSystem (DNS) from a global perspective. Briefly,
13 the cooperative engagement process involves the designation of an official representative from ICANN and the IDN ccTLDmanager, who shall meet
14 with each other telephonically and/or in person to address the concerns in good faith and attempt to reach a resolution.

15 Text first paragraph agreed 10 August 2021

16

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

2 **A. ccPDP4 VM Subgroup Recommendation.**

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

9 AN / Or

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

14 **B. Sub-group Findings and Discussion.**

15 Second reading support 21 September 2021

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

17

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

19

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

23

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

1 Arguments ITEM 3 are just as relevant for this recommendation: see below
2
3 Language around a strong advice. To be revisited next time.
4 Need to determine what is the scope of the policy, what is not
5 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.
6
7 Applying the same principle at second level requires a holistic (systematic) analysis, single TLD, variant TLDs, IDN or ASCII
8 Single IDNccTLD: annex C applies. Starting point is variants at Top Level
9 Selected IDNccTLD with variant IDNccTLD strings: Recommendation 3 and 4 are proposed for IDNccTLD.
10 Single ASCII ccTLD: out of scope of policy ccPDP4.
11 ASCII ccTLD, with variants?: out of scope of this policy.
12
13 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.
14
15 Response: Strange/grey area You play with the stability, security, interoperability.
16 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
17 add it later. Negotiating with purselves. Anticiaption is that there will be lots of discussion around this recommendation. We open possibilities.
18
19 Temperature of the room.
20 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
21 that variants are one and the same. Opening the possibility for diverging registrations would break that fundamental principle. Opportunity for the full
22 group to chime in, and there will be a public comment too. You know there will be comments on this.
23 Temperature check Alternative wording: change Must to Should = recommendation.
24 Who would be in favor to change “must” to “should”? minority
25 Leave it as it is? Majority
26 Suggestion is to keep “must”.
27 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
28 2nd level. But in this recommendation we only talk about the top level.
29 yes, following adjustments of line 10, following needs to be adjusted too
30
31
32 Staff Note: Scope of ccNSO PDPs may be a limiting factor (Annex C ICANN Bylaws)

1 Use language Expected, but not mandatory? However, note that by definition (second level) domains and their variants are one and the same domain. This
2 is derived from actual definition of variants.
3
4 To considered the same by TLDs If the same string then same registrant, otherwise may causes security and stability issues.
5
6 “All allocatable variants” to become “any allocatable variants”
7 All of them must be either registered for 1 and the same entity, or withheld for possible registration by that entity.
8 “any” is indeed better.
9 If they are not registered, they need to be withheld, correct? Yes
10

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

2 **ccPDP4 VM Subgroup Recommendation**

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

8 **WG Findings and Comments**

9 Second reading support 21 September 2021

10

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

1 **Item 5. Harmonization of SLD IDN Tables**

2 **A. ccPDP4 VM Subgroup Recommendation.**

3 To be discussed as part of discussion Section 4.

4 **B. Sub-group Findings and Discussion.**

5 Additional item discussion in section 4 IDN Tables Item 6. Not all variants across Variant TLDs need to be operational

6 **A. Staff recommendation.**

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

8

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

13

14 **B. GNSO SubPro Recommendation.**

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

17

18

1 C. ccPDP4 VM Subgroup Recommendation.

2 ~~The sub-set of registered and sub-set of withheld for possible future second level variant IDN strings may vary across~~
3 ~~the IDNccTLD variant strings.~~ IF IDNccTLD variant strings have been delegated, and for a second level string to be
4 registered under an IDNccTLD string a set of allocatable variant second level strings can generated by applying the IDN
5 Table for second level strings under the IDNccTLD string, THEN the sub-set of registered allocatable variant second
6 level strings and sub-set of allocatable variant second level strings the withheld for possible future registration may
7 vary across the delegated IDNccTLD variant strings.
8

9 D. Sub-group Findings and Discussion.

10 Staff Note: scope of ccNSO PDPs may be a limiting factor (Annex C ICANN Bylaws), to define this a policy requirement.

11 At the same time, note that recommendations is cast in terms of advice or guidance, not as a requirement.

12 Explanation needed: is intention of the original staff recommendation that not all variants of one and the same Second
13 level strings, which according to recommendation 4 have been registered for the same entity under each variant IDNcTLD
14 need to be operational? In other words: not all variants of a second level have to be “in use”?

15 Behaviour. Blocked or allocatable

16 RZ-LGR to validate the TLD

17

18 Policies IDN Table -> ccTLD Manager define their own IDNccTLD tables

19 To be discussed in context of Section 4 (IDN Tables)

20

21

22

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

2 **A. ccPDP4 VM Subgroup Recommendation.**

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

9 **B. Sub-group Findings and Discussion.** See discussion Item 2:

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

11 Include definition of back-end provider, if feasible

12 Adopted 27 July. 2021

13

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

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

16 **Delegation Record for .AC**

17 (Country-code top-level domain)

18

19 **ccTLD Manager**

20 Internet Computer Bureau Limited

21 c/o Sure (Ascension Island)

22 Georgetown

23 ASCN 1ZZ

24 Ascension Island

25

1 **Example 2 (IDNccTLD):**
2 **Delegation Record for .இலங்கை**
3 (Country-code top-level domain designated for two-letter country code LK)
4 **ccTLD Manager**
5 LK Domain Registry
6 c/o Computer Science and Engineering Department, University of Moratuwa
7 Moratuwa 10400
8 Sri Lanka

9
10 What is a ccTLD manager? An IDN ccTLD manager? How is it defined?
11 The term “ccTLD manager”. See future ICANN bylaws. Also included in the IANA root zone. As a result of the delegation process. Same process
12 for ASCII and IDN ccTLDs.
13 Captured in the examples included.
14 Sri Lanka ccTLD manager. Captured the point Sarmad made regarding the definition of (same) entity. We should be consistent in the use of the
15 term ccTLD manager.
16
17 Page 23. Hope this clarifies the intention of the recommendation.
18 Same entity could be either :
19 • the IDN ccTLD manager (see root zone)
20 • Back-end operator, under agreement with the ccTLD manager

21
22

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

2 **A. ccPDP4 VM Subgroup Recommendation.**

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

4

5 **B. Sub-group Findings and Discussion.**

6 IANA expressed hope that whatever parameters / constraints is arrived at by ccNSO policy is will be compatible with GNSO policy. IANA strives wherever
7 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
8 database that will certainly simplify things greatly.

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

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

- 12 • What about blocked variants?
 - 13 • What about allocatable but not delegated variants strings?
 - 14 • What about delegated variant strings?
- 15

16 Meeting 27 July 2021

17 Is this what was intended by the staff recommendation?

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

19 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.

20 Implications on dispute, after delegation, because of variants.

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

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

23 Group agrees to discuss them specifically for the overall selection

24 One abstention. No red marks

25 Revisited next time

26

27

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

2 A. **ccPDP4 VM Subgroup Recommendation.**

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

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

8

9 If a selected IDNccTLD string is requested to be transferred in accordance with RFC1591 as interpreted by the FoI to
10 another entity, the whole set of allocatable IDNccTLD strings SHALL be transferred or withheld for future delegation to
11 the same other entity, on the basis of the request for transfer of the selected IDNccTLD string, unless otherwise
12 foreseen under this policy.

13

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

16

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

19

20

21 Implementation of this and other recommendations pertaining to variant IDNccTLD strings is considered a matter of
22 implementation.

23

24

1 **B. Sub-group Findings and Discussion.**

2 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
3 basic premise is that delegation, transfer, revocation and retirement should be in accordance with existing policies. This is reflected in the
4 ISSUE Report, and proposed policy proposals.

5
6
7 See discussion items 2 and 8 above.

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

11
12 Comment on version 09: variant TLDs are considered as far as the actual ccTLD strings. That is implied with this recommendation
13 Question: why?

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

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

16 Action: ask IANA staff what they expect/experience. Ask if they want to have exceptions.

17
18 Text version 09

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

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

28
29 Implementation of this and other recommendations pertaining to variant IDNccTLD strings is considered a matter of implementation.

1 First reading adopted

2

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 GNSO SubPro Recommendation.

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 B. ccPDP4 VM Subgroup Recommendation.

18 ~~All TLD labels, IDN and ASCII labels, MUST be processed using the RZ-LGR. Lowercase alphabetic ASCII labels are, as a~~
19 ~~practical matter, a subset of the Latin script labels defined by RZ-LGR; therefore, these ASCII Labels must be subject to~~

1 ~~RZ-LGR processing to determine their cross-script variant labels, e.g. with Armenian, Cyrillic, Greek, and other~~
2 ~~applicable scripts. Consequently, the use of RZ-LGR should be incorporated into the (IDN)ccTLD application processes~~
3 ~~accordingly and in a consistent manner.~~

4 Elements VM Recommendation

- 5 • IDN TLDs must comply with IDNA2008 (RFCs 5890-5895) or its successor(s).
- 6 • All selected IDNccTLD strings MUST be processed using the RZ-LGR to determine:
 - 7 1. if they are valid and.
 - 8 2. Calculate Variants. Use RZ-LGR to assign status blocked or allocatable.
- 9 • Special use case: RZ-LGR in relation to ASCII ccTLDs: Should RZ-LGR be applied used to all combination of two ISO 646
10 Basic Version (ISO 646-BV) characters (2-letter [az] codes) to ascertain all potential variants? If so, what is consequence in
11 case:
 - 12 ○ Variants in other scripts?
 - 13 ○ Variants in Latin?
- 14 • If RZ-LGR is applied to selected IDNccTLD string (for script used to express the meaningful representation in the
15 Designated Language), and this results in variant ASCII string (Any combination of two ISO 646 Basic Version (ISO 646-BV)
16 characters (2-letter [az] codes), should these variants be:
 - 17 ○ Blocked
 - 18 ○ Result in not allowing the selected IDN ccTLD (to maintain the and predictability of the current ccTLD
19 delegation policy

20

21 **C. Sub-group Findings and Discussion.**

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

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

6 Possible scenario:

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

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

9 **Discussion on TSG Recommendation**

10 General introduction TSG Recommendation

11 Background is being developed and provides technical community perspective and proposed items to be considered as technical background
12 parameters and not as policy.

13
14 The proposed string is processed: validate the label and identify the variants and assign as:

- 15 • Blocked,
- 16 • Allocatable

17
18 Reason to process ASCII. Variant in other scripts -> in case those are created variants will be identified be blocked.

19 Should be done generically? It is argued processing country codes (2-alpha codes effectively protects country codes (2-alpha codes). If all 2-
20 alpha code would be processed all variants also in related scripts would be identified. If application would come in it would be clear if
21 application would contain blocked character, and hence would not be permissible (Staff note: this assumes a view at individual characters and
22 not at the level of string)

23
24 ccTLD -> two lower case as exception lower and upper case inherent in DNS protocol

1 Note making the distinction between Lower and Upper case From a DNS perspective confusing
2
3 Use of RZ-LGR = 1) Syntax validation and 2) calculation of variants
4
5 syntax validation = “letters” are valid for TLD string (e.g. no hyphen or digits), whole-label evaluations are applied as well (e.g. combining mark
6 cannot start label, no mixing of scripts, etc.)
7
8 calculate of variant = these rules are applied by the algorithm defined by each script Generation Panel, and the integration of the merged RZ-
9 LGR
10
11 SubPro recommendation is gTLD focused.
12 Applicability calculate the variants of existing, already delegated
13 Other than calculate the variants. WG should focus on IDN ccTLD; afraid
14 RZ-LGR
15
16 Any combination of two ISO 646 Basic Version (ISO 646-BV) characters (2-letter [az] codes),
17 Advises to RZ-IGR
18 Variants - > what will
19 ASCII Variants
20
21 RZ-LGR not modify
22 ASCII not prevent to protect them for
23 Two-letter Mechanism / policy method
24
25 Did discuss use cases RZ-lgr Input and output.
26 What is valid is protocol decision? What is blocked and what is allocatable policy decision?
27
28 Technical question: What is VALID?
29 Simple PP is not Cyrillic PP however applied located IDNccTLD. In future ASCII PP? Priority of ASCII code variants blocked
30

1 **Discussion SUBPro Recommendation**

2 3 parts compliance

3 Two uses:

4 1. Syntax validation of application (proposed selected string in terms of IDNccTLD)

5

6 2. Variant calculation: RZ-LGR disposition calculates value Blocked or allocatable

7 “Blocked” should not be delegated

8 “Allocatable” could find a path for delegation

9

10 Questions/ Comment

11 When applying RZ-LGR to ASCII: In future an application for country code TLD should prevail: standing policy, which is fundamental to
12 distinguish between ccTLD and gTLDs, and their related processes, criteria, requirements and procedures

13 If cannot be applied because of RZ-LGR two-letter ccTLD; new territories. Impact beyond scope of IDNccPDP.

14 Question is possible two letter ASCII ccTLD priority new IDNccTLD? TWO-letter (ASCII) excluded from other processes, only available as (ASCII)
15 ccTLD: ISO3166 is not static.

16 **Item 2**

17 **A. TSG Recommendation**

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

- 20
- 21 • Validate an applied-for TLD label and determine its variant labels with corresponding dispositions
 - 22 • Calculate variant labels, and corresponding disposition values, for each one of the already allocated or delegated TLD labels
 - 23 • Calculate variant labels, and corresponding disposition values, for each one of the reserved TLD labels

24

1 **B. GNSO SubPro Recommendation.**

2 **Recommendation 25.2:** Compliance with Root Zone Label Generation Rules (RZ-LGR, RZ-LGR-2, and any future RZ-LGR
3 rules sets) must be required for the generation of TLDs and variants labels, including the determination of whether the
4 label is blocked or allocatable. IDN TLDs must comply with IDNA2008 (RFCs 5890-5895) or its successor(s). To the extent
5 possible, and consistent with Implementation Guidance 26.10, algorithmic checking of TLDs should be utilized.
6

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

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

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

14

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

16 Staff Note: Currently IDNccTLD strings are only delegated. No allocatable IDNccTDL Variant Strings have been identified
17 Neither under the Fast-Track process, nor under the proposed policy (IDN)ccTLD strings are not reserved.
18

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

1 **A. TSG Recommendation**

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

- 4 • Delegated TLDs.
5 • Self-identified “variant” TLDs.

6
7 **3.1. Delegated TLDs:** These are cases that have occurred under special circumstances in which labels generally deemed as
8 the same (i.e. variant TLDs under RZ-LGR) were previously delegated as independent TLDs, albeit with special
9 considerations (e.g. synchronized TLDs). Any such variations should be considered for alignment with RZ-LGR.

10
11 **3.2. Self-identified “variant” TLDs:** Historically IDN TLD applications, for gTLDs and ccTLDs, have asked the applicant to
12 identify and list any variant labels (based on their own calculations) corresponding to the applied-for string. These self-
13 identified “variant” labels may or may not conform to the RZ-LGR once implemented. The self-identified “variant” labels
14 which are also variant labels based on RZ-LGR will need to be assigned a variant disposition based on RZLGR calculation.
15 Further, self-identified “variant” labels that are not variant labels based on the RZ-LGR definition should not be considered
16 as variant TLD labels and it needs to be determined on how to address such labels previously identified by the applicants.

17
18 GNSO and ccNSO must consider a resolution of such outstanding cases that conforms to the LGR Procedure and RZ-LGR
19 calculations.

20
21 **B. GNSO SubPro Recommendation**

22 No corresponding SubPro recommendations

23

1 **C. ccPDP4 VM Subgroup recommendation**

2

3 **D. Subgroup Findings and Discussion**

4 Staff Note: Transitional Arrangement to be developed

5

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

7 **TSG Recommendation**

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

12

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

19

20 Consequently, an applied-for TLD that is determined “valid” may proceed with the subsequent evaluation process,
21 whereas an applied-for TLD that is determined “invalid” must not proceed, because it did not pass the validation by RZ-

1 LGR. While policy needs to determine how an “invalid” label should be dealt with (Recommendation 2 in SAC060), the
2 following technical input should be considered by the relevant policy development process:

3
4 **4.1 Conformance with IDNA2008.** An applied-for label must be in Normalization Form C7 and must conform to IDNA2008.

5
6 **4.2. Conformance with LGR Procedure.** Policy or procedure must not override the results of the RZ-LGR. That is, policy or
7 procedure alone cannot turn an “invalid” label into a “valid” label, or vice-versa. Doing so would invalidate the entire
8 RZLGR. Any change to the RZ-LGR (e.g. repertoire, variant rules or WLEs) must be undertaken using the process stipulated
9 in the LGR Procedure.

10
11 **4.3. Script LGR can be updated, if justified, using the LGR Procedure.** In general, GPs make design choices based on
12 current knowledge and available information. These choices determine the code point repertoire and its context rules, the
13 whole-label evaluation rules and variant sets. If and when there is new information available, the LGR Procedure defines
14 the process to update the RZLGR9.

15
16 **4.4. Re-validation of applied-for label is possible.** The applied-for TLD label may be re-validated when a new RZ-LGR
17 version becomes available.

18
19 **GNSO SubPro Recommendation**
20 **[Regarding the remedy element]**

21
22 **Recommendation 32.1:** The Working Group recommends that ICANN establish a mechanism that allows specific parties to
23 challenge or appeal certain types of actions or inactions that appear to be inconsistent with the Applicant Guidebook.

24
25 The new substantive challenge/appeal mechanism is not a substitute or replacement for the accountability mechanisms in
26 the ICANN Bylaws that may be invoked to determine whether ICANN staff or Board violated the Bylaws by making or not

1 making a certain decision. Implementation of this mechanism must not conflict with, be inconsistent with, or impinge
2 access to accountability mechanisms under the ICANN Bylaws.

3
4 The Working Group recommends that the limited challenge/appeal mechanism applies to the following types of
5 evaluations and formal objections decisions:

6
7 **(Specifically, likely the DNS Stability aspect of evaluation/challenge procedures)**

8
9 **ccPDP4 VM Subgroup recommendation**

10
11 **Subgroup Findings and Discussion**

12

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

14 **TSG Recommendation**

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

18

19 **GNSO SubPro Recommendation**

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

24

1 **ccPDP4 VM Subgroup recommendation**

2

3 **Subgroup Findings and Discussion**

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

7

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**

13

14

1 Section 4. IDN Tables: use cases and requirements

2 A. Staff recommendation.

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

4

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

10

11 B. Findings and Observations SubGroup

12 Reading deferred until section 3 is completed. Note: IDN Guidelines version 4.0 will need to be taken into consideration.

13 Background material for consideration by VM

14

- Recommendation 4 and 5 staff paper.

15

- 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

16

Additional background material:

17

- <https://www.iana.org/domains/idn-tables>

18

- <https://www.iana.org/help/idn-repository-procedure>

19

- <https://www.icann.org/resources/pages/idn-guidelines-2011-09-02-en>

20

21 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
22 the ccTLD label, also how as defined. Different use cases. Fast Track for second level application

1
2
3
4
5
6
7
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9
10
11

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

TWO TLDs variant harmonization , variants , creates variant in one, should be variants

Variant in Han traditional -and simplified

Ai-Chin: procedure IDN Tables harmonized tables, misunderstanding

RZ-LGR, only own IDNccTLD

Across IDNccTLD

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 Agreed

22

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

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

6
7 **WG discussion and observations**

8 First reading Agreed

9
10 Second reading:

11 Looking at the request to this WG to look at the policies and procedures to consider an update of the VM- TLDs. how to introduce a
12 framework to manage VM-TLDs. Top level, with consequences for second level domains. To be listed: what are the policies we
13 reviewed , and the rationale for updating - or not - the policies. E.g. change in hands of an operator. Transition from one operator to
14 another. Gaining operator needs to have the infrastructure ready. What will happen with the 2nd level TLDs? How will they transition
15 to the new operator? Domains that are somehow related to each other. Preserve that state.

16
17 Difference between number 2 and 3. 2 is for TLDs, number 3 is for second level domains. Group agrees that the variants should be
18 managed by the same entities. Question now is: general agreement on what the same entity is for the 2nd level. Some mechanism to
19 be developed. Agreed with Dennis. Motivation of having a definition is the interoperability option. We do see in the cc-space that the
20 tech operators for ccTLDs do change, albeit less frequently. Some merit of considering the definition to be consistent from an
21 interoperability perspective.

22
23 Question: Do ccTLD operators work with (accept registrations from) non-ICANN-accredited registrars? does someone know this?

24 Response: understanding ccTLD backend providers. CcTld managers could be any entity. The cctld manager will and shall define the
25 policy for the ccTLD. (ASCII and IDN). not up to the ccnsso or icann to decide. That policy is in general defined locally, to reflect the
26 relevant laws of the related country, etc.

27 Clear that a same entity needs to run it. How it looks and how it is defined is purely a local matter.
28

1 Appreciate the point. Interoperability concerns with the backend providers. But also interoperability concerns when the ccTLDs are
2 working with the registrars. How are variants handled by different registrars? It becomes difficult for registrars to support, for the same
3 interoperability concerns.

4 Same observation. From the ccTLD world. If they work through registrars, they have their own mechanism to accredit registrars. Some
5 cctld have a lot of registrars, an easy process. Others make it hard to become a registrar. As soon as you define this, you step over the
6 remit of the policy scope. However, it is important to alert IDN and ASCII ccTLDs to this issue. They are advised to address this, for
7 interoperability reasons.

8 Agree with proposed idea. But it is strange to add a recommendation regarding interoperability. Something good for registrars or
9 backend service providers. But is it good for ccTLD managers too? They have their own policies. This group does not have to put this
10 type of recommendation forward.

11
12 Note previous question whether ccTLDs have their own registrars. Accredited by the ccTLDs themselves. Each ccTLDs has its own
13 process for accrediting registrars. Might be icann accredited registrars, but not necessarily. Might be useful to note this as an issue that
14 ccTLD Managers should consider. Rephrase: Rather an advice, but not a policy recommendation

15
16 ccTLDs accredit their registrars themselves, with their own criteria and requirements. That needs to be made clear to the broader
17 community

18 Supported in second reading

19
20 (pp. 11-12)

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

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

26
27 Agreed approach: Evolution of the Fast-Track Process, if at all, should be limited to issues that cause a demonstrable threat to the
28 security and stability of the DNS, can only be addressed through an amendment of the Fast-Track Process, and require resolution before
29 completion and implementation of the envisioned ccPDP 4.

1 Question: Is suggested update an issue that causes demonstrable threat to the security and stability of the DNS, can only be addressed
2 though 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.

3
4 Second reading:

5 For final implementation plan. Extensively discussed 6 weeks and 2 weeks ago as well.

6 Staff questions were raised early 2019. Ccnso has requested to stop the evolution of the fast track process, pending a policy
7 development process. Evolution of FTP should be limited to issues to demonstrate a threat to security and stability

8 Transitional arrangement.
9

- 10
11 5. *Update domain transfer and update process to reflect inter-TLD linkages due to variants and the need to enforce the “same entity” rule*
12 *(e.g. that s1.t1 and s1.v1t1 may have the same contact ROID after a <domainUpdate>).*

13 Staff Note: Explanation needed

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

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

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

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

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

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

23 To be agreed in second reading.

24 2nd level domains should be transferred as as package. Not move one of the variant TLDs separately from the rest.

25 What is included in the notes reflects that explanation. Result from the discussions at the previous meeting

26 Observation: this about the 2nd level.

27 Note that the response of the subgroup at the last meeting. If you agree with item 4 and 4a, it seems logical to do this. But, it goes
28 into the policies of TLDs. if a ccTLD has to do this, it is advised to follow this recommendation as well.

29 Supported in second reading
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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.

From previous meeting. Note that from the ccNSO perspective, there are no reserved names or strings, under any policy. This question is from that perspective not relevant. Any questions regarding the questions and observations? None.

Do you agree, that from a ccNSO policy perspective, this is not relevant?

No red marks.

Second reading 21 September 2021

Question: Is number 6 is now not relevant, but what about the future?

Response: if this would become relevant, it would need to be a policy. You cannot pre-empt on a policy that still needs to be developed. 2 ways of dealing with this:

- Group could include a point of reference, if it ever is discussed that the ccnsso is advised to look at it from a variant perspective
- Leave it up to council and those who deal with variants, to further discuss this, if the ccnsso would ever go down the path of reserved names

Either you suggest the action now, or you leave it up to the ccNSO to address this in future. Support for this particular section understood as follows: it will not be further included.

Suggestion to add alternative option. Add a note.

Observation: note included that in case a policy will be developed around reserved names for ccTLD, variant management observations need to be included. Does the group agree?

2nd reading needed to confirm note is included.

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.

Supported August 2021

(pg. 14)

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

2 Staff note:

3 The label states that have been identified are:

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

12 Question: are these the only relevant states with respect to variant IDNccTLD? Is selected IDNccTLD string relevant? How does selected

13 IDNccTLD string relate to its variants? See also questions section 3.

14

15 Proposed to include various definitions of states in glossary: agreed in first reading.

16 Supported second reading 21 September 2021

17

18 (pg. 15)

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

20 Staff Note: This item is addressed under section 4.

21 Agreed

22

23 10. *Update policies and procedures to require harmonized IDN tables across IDN variant TLDs to produce a consistent set of second-level*

24 *variant labels. Also, require second level variant labels to be allocated to the same registrant under all variant TLDs.*

25 Staff Note: This item will be addressed under section 4.

26 With respect to second point see Section 2 recommendations 3 and 4 & 4A

27 Two TLDs variant harmonization , variants , creates variant in one, should be variants

1 Variant in Han traditional -and simplified

2 Ai-Chin: procedure IDN Tables harmonized tables, misunderstanding

3 RZ-LGR, only own IDNccTLD

4 Across IDNccTLD

5 Agreed in 1st reading

6 Second reading 21 September 2021: Agreed to discuss further under Section 4 IDN Tables

7
8 *11. Those TLDs using EPP may need to create an enhancement (either a protocol modification, a standard message, or a standard*
9 *extension) that permits expressing response messages for unavailability of an unallocated label due to variants. Work with the*
10 *technical community to make this enhancement.*

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

12 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
13 manager. Recognising that it might be an issue, there could be an advise which is not a hard requirement, but use “may/should” type
14 of language.

15 Agreed 1st reading

16
17 Second reading 21 September

18 EPP. observation that it is into the remit of the ccTLD manager. Suggestion to include it as an advise, not as a hard requirement.

19 Question: what do we try to solve? Then we can discuss how to solve it.

20 Response: reading original notes from the staff paper. This is communicating or allowing for communicating, if someone is registering a
21 domain name, it allows to share additional domain names in the registration request. Names that are suggested as blocked or
22 allocatable. Epp request needs to be enhanced, not just limited to the original string.

23 Observation: sitting on the seat of the IDN ccTLD manager

24 Response: some managers do not use EPP. internal implementation. In case they use EPP. was rather targeted at gTLDs.

25 Observation: looks that signalling the availability of domain names is a commercial problem. Not sure how we want to prescribe this
26 from a policy standpoint.

27 Observation: This rfc is about variant EPP. <https://www.rfc-editor.org/rfc/rfc9095> [rfc-editor.org]

28 third category. Available. Not available for 2 reasons: either already registered. Or not registered, because its variant is already
29 registered.

1
2 This goes at the heart of the role of the cctld manager and the SIP.
3

4 **Proposal following the discussion of section 5. The questions around VM shape the policy and originate from**
5 **staff papers. Going forward, the group should consider what is relevant for the policy, and should be adopted**
6 **therefore and what is relevant but is considered out of the policy scope and could be included as advise to cctld**
7 **managers, with a link background material regarding the topic. The proposal is to first decide whether a**
8 **topic/issue is a policy matter or not, if not, whether the WG should /could include a reference as responsibility**
9 **for the cctld manager. The goal is to ensure that a ccTLD Manager, involved in IDNs, is aware of issues, risks and**
10 **potential solutions to address the issues or mitigate the risks.**
11
12
13

14 (pg. 21)

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

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

17 Supported second reading
18
19

20 (pg. 23)

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

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

23
24 Agreed 1st reading

25 Supported second reading
26

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 ccnsso 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.