

Section 4. IDN Tables: use cases and requirements

Version 01 – 14 April 2022

A. Staff recommendation.

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

Question: what does this imply?

Second-level IDN tables applicable for an IDN variant TLD set must be mutually coherent but not necessarily identical.

Question: What does this imply?

For two second-level variant labels s_1 and s_{1v1} under any TLD t_1 generated using the applicable IDN table for t_1 , these must also be variant labels under TLD t_{1v1} if generated by the applicable IDN table for t_{1v1} . This also implies that the complete set of second-level variant labels may not all be valid under all variant TLDs. For example, for the second level label s_{1v2} , the domain name $s_{1v2}.t_1$ may be valid, but due to difference in IDN tables for variant TLDs, $s_{1v2}.t_{1v1}$ may not be valid.

B. GNSO EPDP discussion

C. Proposed recommendations Subgroup VM

1. Should submission of IDN Tables be mandatory or expected under the policy? What the rationale?

2. If IDN tables should be submitted, should the IANA IDN Repository procedure be followed (<https://www.iana.org/help/idn-repository-procedure>)
3. Should the IDN Guidelines be followed or are they expected (but not mandatory) to be followed?

D. Background material

Relevant excerpts Fast Track Process re IDN Tables

(The full document can be found at: <https://www.icann.org/en/system/files/files/idn-cctld-implementation-plan-28mar19-en.pdf>)

Section 3.5.1

The string must meet the criteria of the current or any subsequent versions of the *ICANN Guidelines for the Implementation of Internationalized Domain Names*. This includes:

- All code points in a single string must be taken from the same script as determined by the *Unicode Standard Annex #24: Unicode Script Property*.

Exceptions to this guideline are permissible for languages with established orthographies and conventions that require the commingled use of multiple scripts. However, even with this exception, visually confusable characters from different scripts will not be allowed to coexist in a single set of permissible code points unless a corresponding policy and character table are clearly defined. Further, the IDN Guidelines contain a requirement for IDN registries to develop IDN Tables. The IDN Table(s) must be submitted to ICANN along with the request for an IDN ccTLD.

The IDN ccTLD requesters are encouraged to:

1. Use and refer to already existing IDN Tables
2. Cooperate in development of the IDN Table(s).

Section 5.1.1

In the Preparation Stage, the requester undertakes preparatory work to enter the Fast Track Process. Primary preparation activities include identification, selection, and development of:

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- The development of the associated IDN Table(s) and identification of any potential variant characters. The IDN table(s) must be submitted to ICANN as part of the required supporting documentation for the request.

Section 5.3

In developing IDN Tables and associated registrations policies, requesters are encouraged to work with other language communities that are using the same (or similarly looking) script(s) as the basis for the languages they plan to support.

ICANN will provide support and general assistance in these matters. ICANN will not provide legal or business advice to countries or territories, or any potential or existing registry managers.

IDN Guidelines version 4.0 (May 2018)

<https://www.icann.org/en/system/files/files/idn-guidelines-10may18-en.pdf>

Note the glossary

Letter from the Board re Review of IDN Tables

Ask: IDN tables are included in the applications for IDN ccTLDs as part of the Fast Track process. Due to the importance of the IDN tables, ccNSO's IDN policy development process working group is encouraged to consider if these IDN tables should also be reviewed for a secure and stable design along with the applied-for string, as part of the evaluation for IDN ccTLD applications. This will benefit the secure and stable implementation of IDNs.

Letter from Botterman to Alejandra Reynoso 6 January 2022

<https://ccnso.icann.org/sites/default/files/field-attached/botterman-to-reynoso-06jan22-en.pdf>

Reponse Reynoso to Botterman 11 January 2022

<https://ccnso.icann.org/sites/default/files/field-attached/reynoso-to-botterman-11jan22-en.pdf>

E. Findings and Observations SubGroup

Background material

Repository IDN Tables

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

IANA Procedures IDN Tables

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

Final Proposed IDN Guidelines

<https://www.icann.org/en/system/files/files/idn-guidelines-10may18-en.pdf>

Version 03 (currently in use, April 2022)

Version 01 18 April 2022

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

Letter from Board to ccNSO re review of IDN Tables

<https://ccnso.icann.org/sites/default/files/field-attached/botterman-to-reynoso-06jan22-en.pdf>

05 April

FTP applicable to ccTLDs: 2 use cases

Dennis: Is Use Case 2 limited to Fast Track processed strings, or any ccTLD string —ASCII or IDN?

Bart: did i miss any use cases?

Sarmad: variant strings identified in FTP by applicant.

Bart: requirements IDN tables under ccNSO policy?

2 major ones. Firstly around IDN guideline (v4 and subsequent). Secondly around submission in the iana idn repository.

Do you agree with the 2 use cases? To what extent should use case 2 be a policy recommendation? Or reference to a best practice/advice to ccTLDs.

Dennis: Is Use Case 2 limited to Fast Track processed strings, or any ccTLD string —ASCII or IDN?

Bart: we only talk about IDN ccTLDs. Some ASCII ccTLDs have submitted IDN tables, to indicate they allow such registrations.

One ccTLD allowed almost every script, and submitted a table for each script. As long as you meet the iana repository procedures, they were accepted. Purely voluntary basis for ASCII ccTLDs. IDN ccTLDs were required to do this, because of use case 1

Dennis: what is the role of the idn tables at second level?

Not reasonable to put a burden on IDN ccTLDs and not on the ASCII strings. Differentiation does not make sense. Unreasonable.

Dennis: to be raised to the full WG?

Bart: just to trigger the discussion. This was just a starting point for drafting.

Michael: does it make sense to force that if a registry operator already has an idn table for an ascii TLD, and now wishes to have an idn table for the idn string in the same script, should they be forced to use the same table?

Bart: variants need to be requested at the start of the process. Probably requirement to use same table.

Dennis: think about those lines. What ought to be the requirements to offer a good user experience? Harmonisation of rules. Variants to be coherent. Take that angle.

Sarmad: also one of the recommendations suggested in the staff paper. If there are TLD variants at 2nd level idn tables should be harmonised. That recommendation falls for the idn variant TLDs. Michael suggested extended it to ASCII ccTLDs too. In some cases the ASCII ccTLD and the IDN ccTLD for a country/territory could be managed by different managers. That could complicate matters.

Bart: to circumvent this, we could have At least a strong advise for a consultation.

Assuming IDN table is required, what are the requirements under ccNSO policy?

Sarmad: question for WG to consider. Idn table currently submitted through FTP, are not reviewed. No feedback is provided on security/stability perspective. Only the strings are checked. Should someone also take a look at those?

Bart: see letter from Board to the ccNSO.

Documented procedures. E.g. IDN guideline v4.0

Would a reference to these guidelines work for you?

Michael: why cannot we make the guidelines a requirement? We create the rules.

Bart: 2 reasons.

- Greek allegory. You put in a policy “this guideline is required”, but the guideline itself says “this is not mandatory for you”
- Scope of a ccNSO policy. Difference with FTP. For ccnsso policy, registration policies are out of scope. E.g. whois. This is comparable

Ai-Chin: for the idn tables, not related to idn guideline. Table is related to RFC. guideline does not have influence on idn table. Just emphasis on some policies. Follow the RFC

Bart: good signal.

Bart: let's revisit at the next meeting, when we have more text

Jiankang: policy for root. 2nd level is a different scope. Ai-chin is right.

Ai-chin: case 2. Before we submitted one table. But in case 1 we already have RZ LGR.

Suggest to keep the policy simple.

Bart: to be discussed at the next meeting.

Discussion 22 March 2022

Bart: brief overview of IDN tables. How they are dealt with. Fast track process. Letter from the board of the ccnsso on reviewing IDN tables.

Basic function of the idn tables. Function was over-taken by the RZ-LGR. Recommendation determines if a selected string does not meet the criteria of the RZ-LGR, it is not eligible anymore as an iddn cctld string and can therefore not be requested.

Pitinan: Sarmad is not attending currently

Bart: using the RZ-LGR and replacing the IDN table. To be confirmed at the next meeting

Bart: second function of the idn tables is around the predictability of the registration policy, the idn cctld manager policy would refer to the submitted IDN tables, as a reference for the characters. For lack of a better word, they would allow for registration. Voluntary nature of the idn tables. Not based on RZ-LGR. The selection of characters the ccTLD manager would allow. If there are script users outside the territory, it was recommended that the requesters would work with other communities that use same or similar scripts. This pre-dates the work on RZ-LGR.

Ai-Chin: you caught all points. RZ-LGR for the TLD, and IDN table for Second level for the registration

Bart: limit the discussions on idn tables. If we want to include this, it has to be only for the registration policies of the cctld managers. Here we face a fundamental problem

Is the ccnsa policy remit broad enough, to turn this into a recommendation? Do you want to? Or should be transformed into an advice?

Yuri: understands. Is it understandable for all? Perhaps not for our community. Icaann staff in the best position to look into all the language communities. Hope there can be a solution.

Bart: probably the next stage. This group, given its relation with the RZ-LGR, the fundamental question is whether this should go into a formal recommendation of the PDP, and therefor becomes a requirement, or an advice? Or something in between?

One way of dealing is looking more closely at the idn guidelines. Link between policy itself and the guidelines, could be a way forward. This as background to the fast track

Section 1 sets the tone of the IDN guidelines.

Second paragraph. In the guideline there is a clear distinction between the required compliance for gTLDs, and the intended use for ccTLD managers. This is a nice way to balance between the discussion we had with respect to recommendation and advice.

Jiankang: IDN guidelines. IDN table. If we say IDN table, it is the table for root LGR or second level domains. In future documents, we should clearly distinguish. For second level or root level?

Bart: goes back to Yuri's comment as well probably

Yuri: agrees with Jiankang. This discussion is all about the root zone, not about the second level

Bart: guess that the guidelines will evolve further. CcTlds are involved in the evolution. We will include a reference to the idn guidelines in the policy document as well.

Let's revisit at the next meeting. We also need to discuss what we want to include as recommendations and discuss the questions from the board.

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

Background material for consideration by VM

- Recommendation 4 and 5 staff paper.
- 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

Additional background material:

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

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

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

