

A. Introduction

The purpose of the IDN country code policy development process Working Group 1 (IDN ccPDP WG 1) is to report on and identify a feasible policy for the selection and delegation of IDN ccTLDs associated with the territories listed in the ISO 3166-1 (IDN ccTLDs) within the framework of the IDN ccPDP.

The scope of the IDN ccPDP WG 1 is to focus on, without limitation, examination of the topics raised in the joint GAC-ccNSO Issues paper and comments received on that document. It shall also take into account the proposals and recommendations of the IDNC Working Group and the Fast Track Implementation Plan based on the work of the IDNC WG.

As this WG will undertake its activities within the framework of the IDN ccPDP, the limitations on the scope of a ccPDP, in particular by Article IX of and Annex C to the Bylaws, shall limit the scope of the WG's work accordingly.

If issues outside this scope become apparent to the WG, the Chair of the WG should inform the ccNSO Council of such an issue so that it can be taken into account and dealt with more appropriately.

As a first step, the WG publishes for public consultation a draft Topic Paper on the topics and issues, which in the view of the WG need to be taken into consideration to propose a feasible policy for the selection and delegation of IDN ccTLDs (the Issues).

Building on this draft Topic Paper and the comments received on that paper, the working group will draft a proposal for policy for the selection and delegation of IDN ccTLDs (Draft Recommended Policy), and any documentation necessitated by the Draft Recommended Policy.

B. Scope of the draft Topic Paper

The purpose of this paper is to inform and report to the community on the topics and issues as identified by the IDN Working Group 1 that need to be considered in developing an overall policy and to seek input and comments on them.

This document has (not) been signed off by the IDN ccPDP Working Group. Note that the WG members will continue to provide their own comments and input during this consultation period.

This report and the comments received will be used to structure and propose potential directions in the next phase of this process.

Most of the issues/topics raised in this paper are based on the joint ccNSO GAC Issues Paper, draft initial report from the IDNC Working Group, and the draft Implementation Plan for the Fast Track.

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Deleted: Background: In the DNS, a ccTLD string (like .jp, .uk) has been defined to represent the name of a country, territory or area of geographical interest, and its subdivisions (hereinafter referred to as 'territory' or 'territories') as identified in ISO 3166¹, and is represented by 2 US-ASCII characters. This method of identification was adopted for use in the Internet through RFC 920, dated October 1984, and reaffirmed through RFC 1591, dated March 1994. All ccTLDs in use today are taken directly from the ISO 3166-1 list² or from the list of exceptionally reserved code elements defined by the ISO 3166 Maintenance Agency. There are two sources used by ISO to develop the 3166 lists; the United Nations Terminology Bulletin *Country Names* or the *Country and Region Codes for Statistical Use* of the UN Statistics Division. -

C. Topics and Issues relating to the introduction and delegation of IDN ccTLD

1. Which 'territories' are eligible for an IDN ccTLD?

The existence of IDNs as ccTLDs assumes a direct relationship between an IDN TLD string and a 'territory' as in ASCII ccTLDs.

a) Should this relationship be maintained?

b) If so, should the 'territories' which are potentially eligible for IDN ccTLDs be exactly the same as the 'territories' that are listed in the ISO-3166-1 list?

c) If not, should another list be used or should another mechanism be developed?

2. Should an IDN ccTLD string be "meaningful"?

An ASCII ccTLD string for a ccTLD is based on the ASCII two-letter entry into the ISO 3166-1 list for that territory.

An IDN ccTLD string introduced under the "Fast Track" process must be a unique and meaningful representation of the name of the corresponding country or territory. A string is deemed to be meaningful if it is in the official language of the country or territory and if it is:

* The name of the country or territory; or

* A part of the name of the country or territory denoting the country or territory; or

* A short-form designation for the name of the country or territory that is recognizable and denotes the country or territory in the selected language.

a) Under the overall policy, should the IDN ccTLD string be 'meaningful' in its representation of the name of a 'territory'? For example, whereas .uk is 'meaningful' because it is a commonly used abbreviation for United Kingdom, .au is not 'meaningful' because the commonly used abbreviations for Australia are Oz or Aus.

b) If so, what is considered to be "meaningful", how is it determined and by whom?

c) If not, should there be another criteria for determining to demarcate a string as a ccTLD?

3. How many IDN ccTLDs per 'territory'?

Apart from some exceptions, there is one single ASCII ccTLD per listed 'territory'.

According to the methodology for the selection of a string under the Fast Track process, the number of IDN strings per territory is limited to one string per official language or script per country or territory. For purposes of the Fast Track, an official language is defined as a language that has a legal status in the country or territory, or serves as a language of administration in that country or territory.

A second condition relating to the language and the ccTLD string under the Fast Track process is that its representation in writing is not based on the Latin script nor that the requested string contains the characters (a,...,z), either in their basic forms or with diacritics.

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For example in Japan more than one script is used to represent the Japanese language. In the context of this paper each individual combination of the Japanese language and a script is considered a language/script combination.

a) Should there similarly be only a single IDN ccTLD for a given language/script combination for each 'territory' or can there be multiple IDN ccTLD strings? For example, should there be only one such string in each of the Chinese language/script combinations and one in Russian/Cyrillic for Russia?

b) Should under the overall policy the language and string only be limited to non-Latin scripts either in its basic form or with diacritics?

c) Can a 'territory' apply for an IDN ccTLD string even if the language/script combination does not have any 'official status' in that 'territory'? For example, should Australia be enabled to apply for a ccTLD in the Japanese/Kanji combination even though this language/script combination has no 'official' status in Australia?

d) If 'official status' is required, who will define it and who will determine it in each case?

e) According to the Fast Track methodology, there can be several IDN strings for a 'territory' in a script (one per official language, see also question a. under this section). If this remains to be the case under the overall policy, who would determine the number and what are the criteria?

f) If an IDN ccTLD string is not applied for, for whatever reason, should an IDN ccTLD string that could be associated with a particular 'territory' be reserved or protected in some way? If so, what is the mechanism, and who should maintain the mechanism (see also section 6 and 7).

During the preparation of the Fast Track process some countries and territories have expressed the concern that limitation to one string per language/script combination may cause issues relating to the allocations and delegation of variant TLDs allocated in the DNS. The topic of delegation of variant TLDs and management thereof has been discussed broadly in the technical and policy community.

g) Should the overall policy address the allocation and delegation of variants of a TLD string?

h) If so, how should they be treated in the context of question a), as one individual string or otherwise?

i) In what circumstances would it be appropriate to seek to introduce a limit on the number of language/script combination a 'territory' may choose to introduce for a ccTLD or any TLD with a national connection?

4. Number of characters in the string?

Currently, ccTLD strings are limited to 2 US-ASCII characters and gTLDs to 3 or more. It is understood that abbreviations can be problematic for internationalized TLDs as abbreviations used in US-ASCII are not used on a global basis in all scripts. The underlying nature of IDN makes the actual string inserted in the DNS always longer than two characters when expressed in punycode (due to the IDNA requirement to prefix internationalized labels with 'xn—').

Under the Fast Track process the following criteria apply:

- i. the string must be a minimum of two characters long,
- ii. characters are counted as basic Unicode components.

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- [iii. the string does not need to be the entire country or territory name, nor does it need to be an acronym, as long as the string fulfills the meaningfulness criteria described further below, and](#)
- [iv. the string must not be longer than 63 characters.](#)

In this context:

- a) Should all IDN ccTLD strings be of a fixed length, for example by retaining the two-character limitation that applies to ASCII ccTLD labels, or can they be of variable length? If a variable string length is introduced for IDN ccTLDs, should it also be introduced for ASCII ccTLDs?
- b) Does moving outside the current 2-symbol limitation create any security, stability or integrity issues?
- c) Who determines the appropriate label used to represent a new IDN ccTLD string, and how [is](#) the set of characters used to represent this label selected?

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[5. Are technical requirements for the IDN ccTLD string needed?](#)

[To ensure the stability and security of the DNS, an IDN ccTLD string as requested under the Fast Track process must meet certain technical requirements.](#)

[a\) Should similar technical requirements apply under the overall policy? If not, are other criteria needed or none?](#)

[b\) If yes, should there be a mechanism to update these criteria? And if so, what is the mechanism? And who should update the criteria and maintain that mechanism?](#)

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[6. Should a list of IDN ccTLD strings be mandated?](#)

[In the US-ASCII case, ccTLD strings are currently primarily based on the ISO 3166-1 Alpha 2 list. If a similar mechanism were adopted for IDN ccTLDs, this could mean that to every country or territory listed a "code" would be assigned that would serve as a representation, and would be used as an IDN ccTLD string\(s\) to represent it.](#)

[a\) Is such a list or other list necessary and required to introduce and delegate IDN ccTLDs under the overall policy?](#)

[b\) Who would develop the criteria and relevant policies for such a list?](#)

[c\) Under what policy or authority would the list be created?](#)

[d\) Who would develop and maintain such a list?](#)

[e\) Should such a list be mandated? If yes, who should mandate such a list? Should this be done prior to delegation of IDN ccTLDs under the overall policy?](#)

[f\) If additional criteria and or policies are required, who is responsible for formulating that policy? For example, assuming that the IDN ccTLD string must meet certain technical criteria \(see section 4\), who is responsible and ensures that the entries in the list when used as an IDN ccTLD meet the technical criteria?](#)

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[7. Who selects the IDN ccTLD string in the absence of a list?](#)

[Under the Fast Track process, IDN ccTLD strings are not selected on the basis of an exhaustive list, but within a set of stipulated conditions \(see proposed final Fast Track Process\).](#)

[a\) If under the overall policy IDN ccTLD strings would not be derived from a list \(see previous section 6\), how will an IDN ccTLD string be selected as the string for a particular 'territory'?](#)

[b\) What are the criteria and policies to determine who can submit a request for the designation of an IDN ccTLD?](#)

[c\) Who will develop the criteria and policies for determining the designation of an IDN ccTLD?](#)

[d\) How will such issues as competing requests \(both domestic and international\) be dealt with?](#)

[e\) What will happen if 2 'territories' are eligible for the same or confusingly similar strings for IDN ccTLD?](#)

[Under the Fast Track process there is no objection procedure regarding the proposed IDN ccTLD string](#)

[f\) Once a string has been selected in accordance with the requirements and any criteria, should objections be allowed?](#)

[g\) If so, who can object and on what grounds?](#)

[h\) If an objection is lodged, what is the impact?](#)

[One of the characteristics of the current practice for selecting \(ASCII\) ccTLDs, is that future ccTLDs can be accommodated by virtue of not allowing 2 letter ASCII gTLDs. For example in the recent past .ME for Montenegro and .RS for Serbia were added to the ISO 3166-1 list and subsequently delegated.](#)

[i\) In the absence of a list and an associated policy for inclusion in the list, how can all future territories be accommodated with the appropriate IDN ccTLD string in accordance with the string selection process for the overall policy?](#)

[8. Are there any 'rights' attached to a given script?](#)

[In](#) technical terms, a script is a collection of symbols. However, each of those collections of symbols when put together in particular ways produce the 'languages' of groups of people sometimes defined by borders, although very often not. These groups are often referred to as language communities.

[a\) Should such groups \(or their governments\) have special rights regarding those scripts? For example, should the Korean language community be entitled to restrict the use of the Hangul script? If special rights exist, what is the procedure to exert these rights and resolve conflicts?](#)

[b\) Can anyone get acceptance of a script under the IDNA protocol or are there restrictions? For example, can a gTLD registry get the Kanji script accepted under the IDNA protocol? Should that use be vetted/approved by Japan? If yes, would the same requirement apply if a script were used in more than one 'territory'?](#)

[c\) Should it be possible to adopt two or more 'versions' of a script with only minor differences for use under the IDNA protocol and are there issues or concerns should this occur?](#)

[9. Delegation, Re-delegation and retirement of IDN ccTLDs,](#)

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Under the Fast Track process, at the direction of the ICANN Board of directors, IDN ccTLDs are delegated on the basis of the current practices for delegation of (ASCII) ccTLDs. Under the Fast Track process it is also assumed that the current practices for re-delegation and retirement apply.

a) Should the same practices for delegation, re-delegation and retirement apply to both (ASCII) ccTLDs and IDN ccTLDs?

b) Are there additional requirements relating to the delegation of an IDN ccTLD? If so, what are these requirements? Does the IDN ccTLD manager need to be evaluated against the requirements and if so by whom?

10. Should precedence be given to ccTLDs under the overall policy?

11. What coordination should exist between the different actors? The deployment of IDN ccTLDs will require coordination among various actors, at various stages of the process within territories and ICANN, comparable to the coordination needed under the current delegation, re-delegation and retirement processes. Irrespective of the methodology employed, some coordination questions must be addressed, such as:

a) Who are the appropriate actors?

b) What are their roles?

12. Operation of IDN ccTLDs

a) Is the operation and management of an IDN ccTLD different to that of an existing US-ASCII ccTLD such that there are specific global technical requirements, in addition to the general IDN standards, needed for the operation of an IDN ccTLD?

b) If so, how are those requirements developed and who would develop them?

13. Should there be a formal and financial relationship between ICANN and the IDN ccTLD under the policy?

Currently the formal and financial relationships between an (ASCII) ccTLD and ICANN are based on voluntary arrangements, based on a set of guidelines developed by the ccNSO and implemented by ICANN.

The joint GAC-ccNSO Issues paper and IDNC WG Final Report were silent on the topics of the relationship between ICANN and the IDN ccTLD after delegation of the IDN ccTLD(s) and the financial contribution of an IDN ccTLD to ICANN's cost of operation. However, the relationship and financial contribution were considered extensively in the IDN ccTLD Fast Track implementation planning process.

a) Should there be a required formal, general arrangement between ICANN and the IDN ccTLD as part of the overall policy for the selection and delegation of IDN ccTLDs, taking into account the limited scope of a ccNSO policy development process as defined in Annex C of the ICANN Bylaws?

b) Assuming the security and stability of the Internet and DNS is paramount, how can the security and stability of the Internet and DNS in particular be ensured?

c) If an arrangement is needed, who should define the scope of such an arrangement and how can compliance with the arrangement be ensured?

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In the US-ASCII case, ccTLD strings are currently primarily based on the ISO 3166-1 Alpha 2 list. If a similar mechanism were adopted for IDN ccTLDs, this could mean that every ISO 3166 entry would have an equivalent IDN ccTLD string(s) to represent it. -

- a) Is such a list necessary? -
- b) Who would develop such a list? -
- c)

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- d) If yes, by whom? -
- e) Who would develop

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f) Under what

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What precedence should be given to ccTLDs in the IDN implementation process? -

Who selects the IDN ccTLD string in the absence of a mandated list? -

If IDN ccTLD strings are not going to come from a mandated list then, how does an IDN ccTLD string become designated as the string for a particular 'territory'? -

- a) What are the criteria and policies to determine who can submit a request for the designation of an IDN ccTLD? -
- b) Who will develop the criteria and policies for determining the designation of an (... [1]

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d) In the event an IDN ccTLD string is delegated, should the IDN ccTLD manager comply with future global policies relating to (IDN) ccTLDs, and if so, how can this be ensured?

e) Should it be required to pay for processing the request for an IDN ccTLD as part of the overall policy for the selection and delegation of IDN ccTLD? If so, who defines the conditions and level of such a payment, taking into account the limited scope of a ccNSO policy development process as defined in Annex C of the ICANN Bylaws and the manner in which the application fee under the IDN ccTLD Fast Track process has been developed?

f) Should it be required to pay an annual financial contribution to ICANN cost of operation as part of the overall policy for the selection and delegation of IDN ccTLD? If so, who defines the conditions and level of such a payment, taking into account the limited scope of a ccNSO policy development process as defined in Annex C of the ICANN Bylaws and the manner in which the application fee under the IDN ccTLD Fast Track process has been developed?

D. Process and references

Background

To help clarify the issues related to the use of IDNs in the ccTLD space, the ICANN Board at its meeting on 8 December 2006 asked the ccNSO and the GAC to produce an issues paper relating to the introduction and selection of IDN ccTLDs associated with the ISO 3166-1 two letter codes. (http://www.icann.org/minutes/resolutions-08dec06.htm#_Toc27198296)

At its meeting on 27 June 2007 the ccNSO Council adopted the IDN Issues Paper (<http://www.ccnso.icann.org/announcements/announcement-09jul07.htm>) as a ccNSO Issues Paper, and resolved to submit it to the ICANN Board in close cooperation with the GAC. The paper was submitted as a joint GAC ccNSO Issues Paper on Selection of IDN ccTLDs associated with the ISO 3166-1 two-letter codes.

At its meeting on 29 June 2007 the ICANN Board of Directors asked the ICANN community including the GNSO, ccNSO, GAC, and ALAC to respond to the published list of issues and questions that must be addressed to move forward with IDN TLDs associated with the territories referenced on the ISO3166-1 list (IDN ccTLDs) in a manner that ensures the continued security and stability of the Internet. (www.icann.org/minutes/resolutions-29jun07.htm#l)

At the same meeting the ICANN Board asked the ICANN community, including the GNSO, ccNSO, GAC, and ALAC, to continue to work collaboratively, taking into consideration the technical limitations and requirements, to explore both an interim and an overall approach to IDN ccTLDs and recommend a course of action to the Board in a timely manner (www.icann.org/minutes/resolutions-29jun07.htm#l)

Following a ccNSO Council recommendation and broad support of the ICANN community, including the GAC, GNSO and ALAC, the ICANN Board requested at its meeting in Los Angeles, November 2007, that the chairs of the ALAC, ccNSO, GAC and GNSO to establish the IDNC Working Group and appoint members to this group. The Board further asked that, when established, the IDNC Working Group commence work, in accordance with its Charter (See: <http://ccnso.icann.org/workinggroups/idncwg.htm>).

At the ICANN meeting in Paris (June 2008) the working group submitted its Final Report to the Board, including statements of the GAC and ccNSO on the proposed methodology. The Board also directed staff to commence work on implementation issues in consultation with relevant stakeholders; and submit

implementation reports (version to date proposed final Implementation Plan, <http://www.icann.org/en/announcements/announcement-2-30sep09-en.htm>)

At its meeting on 2 October 2007, the ccNSO Council resolved to initiate the country code Policy Development Process (ccPDP) to develop policy for the selection and delegation of IDN ccTLDs and asked ICANN to create an Issue Report, in accordance with Annex B section 1 of the ICANN Bylaws:

1. To determine whether Article IX of the ICANN by laws applies to IDN ccTLDs, and if not, whether Article IX should apply.
2. To recommend whether the ccNSO should launch a PDP to develop the policy for the selection and delegation of IDN ccTLDs.

At its meeting on 7 April 2009, the ccNSO Council resolved to initiate a ccNSO policy development process to recommend to the ICANN Board:

- A policy on the selection and delegation of IDN ccTLDs and,
- Changes to Article IX of the ICANN Bylaws to include IDN ccTLD's in the ccNSO.

ccNSO Policy Development Process

Under the Bylaws (Annex B) a PDP must proceed in predefined stages, some of which may involve a minimal period of time. The Issue Report and ccNSO Council decision to launch the IDN country code policy development process concluded the first stage.

The next stage, is to propose resolutions to the issues raised in the Issues Report. This stage will concluded with the submission of the Final report of the Issues Manager to the ccNSO Council. seek comment and input from stakeholders on the issues raised and possible alternative solutions, if any, to resolve the issues.

Taking into account the scope of issue(s) to be resolved and the cross cutting interests involved, and, secondly, the experiences gained with the IDNC Working Group in cross SO / AC cooperation, the ccNSO Council resolved to establish and appoint two working groups under the IDN ccPDP to propose a feasible policy and changes to Article IX. The purpose of the first working group is to study and report on a feasible policy for the selection and delegation of IDN ccTLDs. The purpose of the second working group (to be established after the first working group has published its interim paper) is to report on changes to Article IX of the ICANN bylaws necessitated by the policy recommendations by the first working group. The recommendations of the working group will be the substantial part of the Final Report.

The third stage starts with submission of the Final Report to the ccNSO Council and ccNSO members for a vote. If adopted by both the ccNSO Council and the ccNSO members the Recommendations will be submitted to the ICANN Board of Directors for adoption as an ccNSO policy.

Applicability of adopted policies to (IDN) ccTLDs

Assuming the ICANN Board of directors adopts the recommendations of the ccNSO, and assuming Article IX of the bylaws will not change in respect of the applicability of a ccNSO policy, such a policy only applies to IDN ccTLD managers if:

- a. The IDN ccTLD manager has applied for membership of the ccNSO. By applying and becoming a member the IDN ccTLD manager agreed to abide by policies developed and recommended by the ccNSO and adopted by the Board (Article IX section 4.2);

b. The policy is within the scope of the ccPDP (As defined in Annex C of the Bylaws), developed through a ccPDP and has been recommended as such by the ccNSO, provided that the policy does not conflict with the law applicable to the IDN ccTLD manager, which shall at all times remain paramount. Secondly, once adopted as policy an individual (IDN) ccTLD can exempt itself from a policy, if it provides a declaration to the ccNSO Council stating that (a) implementation of the policy would require the member to breach custom, religion, or public policy (not embodied in the applicable law), and (b) failure to implement the policy would not impair DNS operations or interoperability.