

# ccNSO-GAC IDN Working Group

## DRAFT FOR DISCUSSION

### ISSUES PAPER

#### Selection of IDN ccTLDs associated with the ISO 3166-1 two letter codes

#### Background

A ccTLD string (like .jp, .uk) is deemed to 'represent' a territory in the DNS and by extension on the World Wide Web.

Currently, a ccTLD string is a 2 letter (ASCII character) representation of the territory where the 2 characters are 'mandated' by ICANN and the actual characters used are taken from the ISO 3166 list<sup>1</sup>. [Essentially, therefore, the current ccTLD strings are mandated and each ccTLD accepts the 2 letter code assigned by ICANN from the ISO list.] The decision to use this list was made with the knowledge that the ISO has a procedure for determining which entities should be or should not be on that list (RFC 1591, pg 6).

The introduction of Internationalized Domain Names ccTLDs requires the use of non-ASCII "character sets" (such as cyrillic, chinese, arabic, etc...). These character sets have to respect the two following conditions :

- be included in the Unicode tables and,
- be included in the list of characters that are valid IDN characters pursuant to the IDNA protocol requirements.

For more information on these conditions see <http://www.icann.org/general/idn-guidelines-22feb06.htm> and the references therein to RFCs 3454, 3490, 3491, and 3492.

To help clarify the issues related to IDNs in ccTLD space, the ICANN Board has 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.

The ccNSO and the GAC have formed a joint working group and on 5 February 2007, ccNSO Chair Chris Disspain emailed a non-exhaustive list of questions for the joint GAC/ccNSO IDN Working Group to consider. Set out below is an expansion of some of those questions which form the starting point of the requested issues paper. The original questions appear in Appendix A. Note that a number of the issues below are interrelated and potentially the answer to one may be dependant on the outcome of another.

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<sup>1</sup> URL for the ISO list

To facilitate understanding and further discussion, the different questions are grouped in four major clusters, following the logical order : 1) General issues, 2) Introduction, 3) Delegation and 4) Operation of IDN ccTLDs.

## **1. General issues regarding IDN ccTLDs**

### **Should an IDN ccTLD string be “meaningful”?**

Given that a ccTLD string ‘represents’ the territory, is there an obligation to make the IDN ccTLD string 'meaningful' as a representation of the territory or is it sufficient for it to be in the character set and to accept that the 'meaning' will be learned? 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.

### **How many IDN ccTLDs per character set?**

Apart from some exceptions, there is one single ASCII ccTLD per territory. Should there similarly be a single or several IDN ccTLDs for a given character set for each territory? For example, should there be only one equivalent of .cn in chinese characters or .ru in cyrillic? Or could there be several IDN strings for China in a chinese character set?

### **Number of character sets per territory?**

Should there be limitations on the number of IDN ccTLD strings a territory can have and should there be a requirement for some level of 'status' for a character set in the territory? In particular, can a territory apply for an IDN ccTLD string even if the character set is not used in a language with any official status in the territory? For example, if the Kanji character set is accepted under the IDNA protocol, can Australia apply for something representing Australia in that character set even though neither the character set nor any language deriving from it has any 'official' status in Australia?

### **Number of characters in the string?**

Currently, ccTLD strings are limited to 2 characters and gTLDs to 3 or more. The underlying nature of the Internationalized Domain Names makes the actual string inserted in the DNS always longer than two characters when expressed in Unicode : [xn--....]; however, it is how the string appears in its non-ASCII character set that is important. In that respect :

- a) Is there any reason to maintain the 2 character string restriction for IDN ccTLD strings?
- b) Is limiting .IDN ccTLD strings to 2 characters workable across all character sets?
- c) Does moving outside the current 2 character limitation create any security, stability or integrity issues?

## **Are there any 'rights' attached to a given character set?**

In purely technical terms, a character set is merely 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. Should these groups (or their governments) have special rights regarding those character sets? Examples of related questions include :

- a) Can anyone get acceptance of a character set under the IDNA protocol or are there restrictions? For example, can a gTLD registry get the Kanji character set accepted under the IDNA protocol? Does that need to be vetted/approved by Japan?
- b) Are there any 'ownership' rights over a character set? For example, once the Korean character set is accepted under the IDNA protocol, should Korea be entitled to restrict its use or be required to consent to its use by another ccTLD?
- c) Is it possible that two or more 'versions' of a character set with only minor differences could be accepted under the IDNA protocol and are there issues or concerns in that event?

## **2. Introduction of IDN ccTLDs**

### **Should a list of IDN ccTLD strings be mandated?**

In the ASCII case, ccTLD strings are mandated based on the ISO 3166 list. If the same methodology were applied for IDN ccTLDs, some authoritative body would, for each character set approved under the IDNA protocol, mandate a ccTLD string in that character set to represent each territory currently on the ISO list. This would mean that every territory would have a mandated ccTLD string to represent it in every character set and such string would, presumably remain reserved until delegated to the territory.

Examples of related questions include :

- a) Should such a list be mandated? (If no, see below)
- b) If yes, by whom? (NOTE that it is understood that ISO has been previously asked and declined such a role)
- c) Under what policy?
- d) If new policy is required, who is responsible for formulating that policy?

### **Who picks a string for a territory in the absence of a mandated list?**

If IDN ccTLD strings are not going to come from a mandated list then, once a character set is accepted, how does an IDN ccTLD string become designated as the string for a particular territory?

Examples of related questions include :

- a) Who will formulate the policy for this process?
- b) Who can 'apply' for a string to be designated as a ccTLD for the territory (this is different to applying for the delegation or to be the manager). For example, does such an application have to come from the government of the territory? If so, which department of the government? What happens if there are competing 'claims'?
- c) Should the string applied for be "meaningful" (see above) with respect to the territory ? if so, how is it to be determined that it does?

### **What coordination between the different actors?**

Irrespective of the methodology employed, some coordination questions must be addressed, such as :

- a) What should be the balance between general common rules and autonomous responsibilities by the territory level?
- b) How to organize interaction between actors using a same character set?

## **3. Delegation of IDN ccTLDs**

Once a string has been designated as an IDN ccTLD for a territory, by whatever method, the processes for delegation raise, among others, the following questions :

### **Who can apply to have the IDN ccTLD delegated or to be the delegate for that ccTLD?**

#### **Who decides on the delegation?**

In particular :

- a) Is consent/involvement/knowledge of government required?
- b) Is consent/involvement/knowledge of incumbent ccTLD manager required?
- c) Is there any presumptive right of the ASCII ccTLD manager over the IDN ccTLD?

**Who will formulate the policy for these processes?**

**Should there be a mandated policy/process for dealing with multiple applications, objections to applications or disputes?**

#### **4. Operation of IDN ccTLDs**

Is the operation and management of an IDN ccTLD different to that of an existing ccTLD such that there be specific global technical requirements related to running the IDN ccTLD?

## APPENDIX A

### Questions for consideration re IDN ccTLDs

1. How is it determined that the string represents the territory?
2. Does there have to be a connection with existing "ASCII TLD".
3. Who is responsible for picking the string?
4. Should there be a mandated process for picking the string?
5. Should there be a certain status of the use of the character set in the corresponding territory? For example does the character set have to be an official language?
6. Who can apply for a string (sponsoring organization, government, others)?
7. Should there be a requirement that the manager of the new idn ccTLD be connected to the entity that runs the existing TLD?
8. Are there any requirements on the number of characters in the string?
  - guidance on 63 character maximum length.
  - connection to current 2-character limited ccTLDs.
  - consideration of existing TLD acceptance issue where internet service providers need to "accept" the introduction of a new string in order for it to be useful to market. ICANN have previously provided information to various companies, but cannot require ISPs or other internet service companies to adopt the use of new strings.
9. How many idn ccTLDs can a territory have?
10. Should there be specific technical requirements related to running the idn ccTLD?
11. Should there be a policy/process for handling disputes between parties such as incumbent ccTLD manager, government, other applicant?
12. Should there be a policy/process for dealing with multiple applications or objections to applications?