JIG Initial Report on IDN TLD Variant Policies for the Root Zone

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[NOTE: This is a discussion draft for JIG discussion. Placeholders are included in square brackets “[” and “]” for sections not already drafted.]

This report is intended to be a document to solicit input from the community. The document is a preliminary stocktaking of policy considerations as well as possible approaches to address such considerations for the implementation of application, allocation and delegation policies for IDN Variants in the root zone for IDN gTLDs and IDN ccTLDs.

The JIG (Joint ccNSO-GNSO IDN Working Group) was created to discuss issues of common interest between the ccNSO and the GNSO on IDNs (Internationalized Domain Names), especially IDN TLDs. The JIG has identified 3 issues of common interest to date:

1. Single Character IDN TLDs
2. IDN TLD Variants
3. Universal Acceptance of IDN TLDs

This report is specific to issue 2. IDN TLD Variants.

**I. Background & Related Works**

[This section would be a concise description and explanation of the works previously done and currently ongoing on the subject of IDN Variants.]

Background Information:

* IESG Statement: <http://www.ietf.org/iesg/statement/idn.html>
* ICANN IDN Guidelines: <http://www.icann.org/en/topics/idn/idn-guidelines-26apr07.pdf>
* JET / CDNC RFCs
	+ <http://www.ietf.org/rfc/rfc3743.txt>
	+ <http://www.ietf.org/rfc/rfc4713.txt>
* GNSO Final Report on the Introduction of New gTLDs: <http://gnso.icann.org/issues/new-gtlds/pdp-dec05-fr-parta-08aug07.htm>
	+ GNSO IDN WG Outcomes Report: <http://gnso.icann.org/drafts/idn-wg-fr-22mar07.htm>
* IDNC Final Report: <http://ccnso.icann.org/workinggroups/idnc-wg-board-proposal-25jun08.pdf>
* IDN Implementation Working Team Final Report: <http://www.icann.org/en/topics/new-gtlds/idn-implementation-working-team-report-final-03dec09-en.pdf>
* Synchronized IDN ccTLDs: <http://www.icann.org/en/topics/idn/fast-track/proposed-plan-synchronized-idn-cctlds-22mar10-en.pdf>
* Board Resolutions
	+ <http://www.icann.org/en/minutes/resolutions-12mar10-en.htm#10>
	+ <http://www.icann.org/en/minutes/resolutions-25jun10-en.htm#2>
		- <http://www.cnnic.cn/html/Dir/2010/06/12/5852.htm>
	+ <http://www.icann.org/en/minutes/resolutions-25jun10-en.htm#4>
		- <http://www.twnic.net/english/dn/dn_07a.htm>

Related current works:

* IETF DNSEXT WG: <http://www.ietf.org/id/draft-yao-dnsext-identical-resolution-01.txt>
* IDN ccPDP: <http://ccnso.icann.org/workinggroups/ipwg1.htm>
* Draft New gTLD Applicant Guidebook (DAG – <http://www.icann.org/en/topics/new-gtlds/draft-rfp-clean-28may10-en.pdf>) and subsequent versions as they become available, along with corresponding comments received; and,
* IDN ccTLD Fast Track Final Implementation Plan (<http://www.icann.org/en/topics/idn/fast-track/idn-cctld-implementation-plan-16nov09-en.pdf>) and relevant subsequent updates.

**II. Glossary / Nomenclature of Terms Used**

[Probably should have a session explaining the nomenclature used for this document/discussion.]

Primary IDN: The IDN TLD String applied for

IDN Variant: A string different from the Primary IDN but considered an IDN Variant of the Primary IDN (see section IV.) based on the corresponding IDN Language Policy

**III. Policy Aspects of IDN Variants**

In considering the scope of the work at the JIG, the group is cognizant that there are relevant ongoing discussions on the subject of IDN Variants at various different forums and groups. Following the charter of the JIG, the scope and focus of this group would be on policy aspects relevant to issues of common interest. More specifically, for IDN Variants, the JIG will focus on policy operatives for implementation by ICANN in its technical coordination of the DNS root zone.

It is an important fundamental understanding that an IDN Variant is a domain that is a physically and/or technically different string from the Primary IDN, and that and that the Primary IDN along with any delegated IDN Variant should be considered by policy as one domain. Another important consideration is that IDN Variant policies for the root zone should be implementable based on existing standards, technologies and operational experiences.

The JIG has identified the following aspects that should be considered for the development of an IDN Variant policy that could be consistently applied by ICANN for all IDN TLDs in the root zone:

1. The requirements for a string to be considered an IDN Variant (of its Primary IDN)
2. Framework of attributes constituting an IDN Language Policy for producing IDN Variants
3. The types of IDN Variants with respect to their allocation and delegation properties
4. Policy operatives corresponding to the types of IDN Variants

[The above list is a first draft for discussion so far.]

**IV. Preliminary Viewpoints & Possible Approaches**

[This section will include viewpoints collected in the workgroup discussion regarding the aspects mentioned above. This draft contains discussions collected so far.]

**1. The requirements for a string to be considered an IDN Variant (of its Primary IDN)**

[Points collected so far]

* Consistently produced based on an appropriate IDN Language Policy (described in 2. below)
* Is technically (based on the DNS standards) a different string than the Primary IDN

**2. Framework of attributes constituting an IDN Language Policy for producing IDN Variants**

[Points collected so far]

An appropriate IDN Language Policy should include the following components

* A set of character tables (IDN Language Tables)
* If IDN Variants are to be produced, at least one of the character tables being a character variant mapping table
* A set of rules describing how IDN Variants are to be generated from a given Primary IDN
* A set of rules describing how IDN Variants are to be categorized (into the types identified in 3. below)
* A set of rules describing any allowed or disallowed combination of characters

An appropriate IDN Language Policy should demonstrate the following properties

* Same set of tables and rules to be applied for second level registrations (or any level the registry provides registrations for)
* Due consideration for user cultural and linguistic considerations

**3. The types of IDN Variants with respect to their allocation and delegation properties**

[Points collected so far]

* Preferred Variants (Desired Variants) – allocated and delegated together with the Primary IDN
* Reserved Variants (Desired Variants) – allocated, not delegated, but reserved for use by (i.e. delegation to) Primary IDN only
* Blocked Variants (Undesired Variants) – unallocated, and should not be allocated or available for further application

Another type of IDN Variants can be identified as:

* Zone Variants – Preferred Variants + delegated Reserved Variants

**4. Policy operatives corresponding to the types of IDN Variants**

[Points collected so far]

* Preferred Variants: allocated and delegated together with the Primary IDN
* Reserved Variants: to be considered a separate application

**V. Considerations for a Holding Pattern**

The JIG understands that there are ongoing discussions at the technical community for new technical solutions to implement IDN Variants. However, before such technologies can be widely deployed, the following holding pattern policy should be considered by ICANN:

* Allocate and Delegate Preferred Variants only to the same set of NS delegations (to the Primary IDN) to a successful applicant
* Require that the TLD operator adhere to the IDN standards and ICANN IDN Guidelines, as well as to develop a comprehensive implementation plan to undertake to operate the IDN Variant TLDs in a manner which does not cause confusion to the Internet user community
* Maintain Reserved Variants as “reserved” (unallocated and un-delegated) to the successful applicant (of the corresponding Primary IDN) for the time being until a special allocation and delegation process can be developed or the applicant applies for it as a separate application.
* For Preferred and Reserved Variants, they should be taken into consideration when considering contention sets (i.e. two applications for different Primary IDNs with an overlap of one or more IDN Variants should be identified as a contention set)
* For Blocked Variants, allow overlap (i.e. two applications for different Primary IDNs with an overlap of one or more Blocked Variants can be allowed to proceed separately)