## Analysis of Policies Related to IDNs by GNSO and ccNSO for Consistency

Preliminary Analysis by ICANN Org

## Background

Internationalized Domain Name (IDN) country code top-level domains (ccTLDs) are delegated through the IDN ccTLD Fast Track Process. IDN generic top-level domains (gTLDs) were delegated during the New gTLD Program that commenced in 2012. Though the community identified the need for IDN variant TLDs, they were not considered in the 2012 round following the <u>Board resolution</u>, which said: "No variants of gTLDs will be delegated through the New gTLD Program until appropriate variant management solutions are developed."

Follow-up work on IDN variant TLDs by the community identified two gaps:

- 1. No definition of TLD variant labels.
- 2. No TLD variant management mechanism.

For addressing item 1 above, <u>Root Zone Label Generation Rules</u> (RZ-LGR) have been developed. RZ-LGR provides consistent definitions for IDN variant labels for TLDs. For item 2 above, a study on <u>Variant TLD Recommendations</u> was published by ICANN org. The ICANN Board <u>requested</u> the Generic Names Supporting Organization (GNSO) and Country Code Names Supporting Organization (ccNSO) to consider the variant TLD recommendations and coordinate their respective policy development processes (PDPs) "to ensure a consistent solution, based on the Variant TLD Recommendations, is developed for IDN variant ccTLDs and IDN variant gTLDs." <u>Board resolution</u> on 16 March 2023 reiterated for IDN EPDP to ensure a consistent solution on IDN Variant TLDs with the ccPDP4 on IDN ccTLDs (in accordance with prior Board <u>Resolution 2019.03.14.09</u>).

The GNSO and ccNSO have been working on PDPs, which would allow for variant TLDs. These include:

 The GNSO's New gTLD Subsequent Procedures (SubPro). IDNs are covered in Section 25 of the SubPro <u>Final Report</u>, which was approved by the GNSO Council on 18 February 2021, while its Operational Design Assessment (ODA) is currently being considered by the Board.

- The GNSO's IDN Expedited Policy Development Process (<u>IDN EPDP</u>). Its <u>charter</u> was approved by the GNSO Council on 20 May 2021 and the IDN EPDP team is underway. It published its <u>Phase 1 Initial Report</u> for <u>public comment</u> on 24 April 2023.
- The ccNSO's IDN country code Policy Development Process 4 (IDN ccPDP4), which is intended to replace IDN ccTLD Fast Track Process. Its <u>charter</u> was approved by the ccNSO in August 2021, and the IDN ccPDP WG is underway.

To keep the policies as consistent as possible, the IDN EPDP team and IDN ccPDP4 Working Group (WG) have liaisons appointed to each other. The groups also meet periodically to discuss alignment of recommendations.

## Scope and Motivation

<u>Final Report on the new gTLD Subsequent Procedures Policy Development Process</u> has been published and <u>considered</u> by the Board. The IDN EPDP team is developing its recommendations in two phases with Phase 1 recommendations focused on TLDs and Phase 2 recommendations focused on second-level registrations. Although the work of the IDN EPDP team and the IDN ccPDP4 WG is in progress, there are initial sets of recommendations now available.

Many of the relevant recommendations are aligned but some are different. Based on the available recommendations, with the caveat that these recommendations by IDN EPDP Team and IDN ccPDP4 WG may change with further discussion and public input, this document draws out the recommendations and guidelines which are different across the two efforts. This will assist the stakeholders in assessing these differences and determining if they are still consistent as per the <u>guidance</u> of the Board.

## Analysis of IDN Policies

#	Торіс	GNSO Recommend -ation (SubPro and/or IDN EPDP)	ccNSO Recommend -ation (IDN ccPDP4)	Commentary	Divergence Analysis (Low, Medium, High)
1	Applying for strings in scripts not supported by RZ-LGR.	Such strings should be processed up to but not including contracting. (SubPro)	Such strings cannot proceed for evaluation until the relevant script is	As ccTLD applicants directly represent the community using the script and the ccTLD applications are on rolling basis, they should work with the community	Medium - for complex scripts, Lower in others. For gTLD applications,

			integrated into RZ-LGR.	to develop the RZ-LGR proposal and then apply after it is updated. As gTLDs are applied in rounds, the application should be admitted but not contracted until RZ- LGR is updated and the string is finally reviewed.	how to determine string validity and variant labels for application processing?
2.	Dispositions of variant TLD labels and their application as variant TLD.	Valid TLD strings should be categorized as primary, Allocatable, or Blocked. (IDN EPDP)	Valid TLD strings should be categorized as selected (primary), Delegatable, Allocatable or Blocked.	ccPDP4 considers delegatable strings, the subset of allocatable strings which meet the general criteria for selection of IDNccTLD strings (meaningful in an official language). Remaining allocatable labels are not allowed for application for ccTLDs. The IDN EPDP considers that all allocatable labels are allowed for application for gTLDs, but whether they can be delegated is subject to successful evaluation. The primary label or selected string is the main applied-for string that acts as the source label for calculating the allocated andblocked labels through RZ-LGR.	Low. Delegatable variant labels are a subset of Allocatable variant labels, so ccTLD policy is more conservative.
3.	Scope of string similarity review between a pair of strings.	(Primary + Allocatable) x (Primary + Allocatable + Blocked) (in each direction) (IDN EPDP)	(Primary + Delegatable) x (Primary + Delegatable) (in each direction)	When two strings are being compared for string similarity review, the IDN EPDP team suggests comparing the complete variant label set against each other, except for blocked variant labels with the blocked variant label. This hybrid approach	Low. Allowance for review panel to reduce or increase scope of comparisons aligns the two methods.

		aims to mitigate visual	
		confusion risks involving variant labels, while reducing the computational complexity of comparing a large number of blocked variants against each other.	
		The IDN ccPDP4 WG suggests a basic set, which shall be expanded by the panel factoring in likelihood of misconnection, scalability and unwanted consequences.	
		The IDN EPDP team is suggesting that the security and stability review panel may reduce some unneeded cases to reduce the comparison cases as needed. The string similarity review panel may decide not to include blocked variant labels in the comparison based on scripts and other criteria. Similarly, the IDN ccPDP4 WG is also suggesting the string similarity evaluation panel may add some needed cases as they see fit to include allocatable (and blocked, if needed) comparisons.	
		In these cases, the two viewpoints converge based on the security and stability review. However, if the panels are different for gTLDs and ccTLDs, then learning from one may not be transferable to the	

				other unless there are clearly documented guidelines for such cases. In addition, the ccPDP4WG will propose a three step validation process, similar to the current process under the Fast Track process.	
4.	Number of delegated variant TLD labels.	No ceiling value on how many Allocatable variant labels of a gTLD can be delegated. Up to four variant labels may be applied with the primary label without additional fee. (IDN EPDP)	Limit that only Delegatable variant labels of a ccTLD can be delegated.	The Security and Stability Advisory Committee (SSAC) in the <u>SAC060</u> report asks for managing the number of delegated variant TLDs (and variant labels at the second level) as these can create many domain names due to permutation. Many domain name variants can be difficult to manage by registries, registrars, and registrants. The IDN EPDP team suggests developing guidelines for the management of IDN variant gTLDs. Analysis may be needed to determine if delegatable variant labels are able to contain variant labels for ccTLDs for all scripts, specifically Arabic and Chinese scripts which could have a higher number of allocatable variant labels.	High. No additional limit on allocatable variant gTLDs (generated by RZ-LGR) and no additional fee for up to four variant gTLD labels may enable applicants to apply for labels beyond what is "necessary" (as suggested by SSAC report).
5.	Impact of changes in RZ-LGR on delegated	Once delegated, gTLDs will not be	Once delegated, ccTLDs will not be	The IDN EPDP team requires Generation Panels (GPs) and the Integration Panel to	Low. It would be rare that RZ-

	TLDs.	undelegated. In case RZ- LGR is changed, the gTLD will be grand- fathered. (IDN EPDP)	undelegated, unless their delegation demonstrably threatens the stability and security of the DNS.	make a best effort to retain full backward compatibility for RZ-LGR updates. In the event full backward compatibility cannot be retained, the IDN EPDP team requires any GP making such a change in RZ-LGR to work closely with the relevant gTLD registry and ICANN org to assess the security and stability risks and impact while taking the change through the Public Comment process.	LGR will be updated in a way that makes an existing TLD invalid.
6.	Single character TLDs	Allowed for Han script, but no application can be accepted until relevant guidelines developed by Han script community implemented (SubPro; IDN EPDP)		No discussion on how single character IDN ccTLDs may be considered in ccPDP4.	Medium. Low possibility for a single character IDN ccTLD application in Han script. Would be useful to have ccNSO input on this topic as well.
7.	Delegation of successfully evaluated TLD and its variants TLDs.	The primary and variant TLDs must be delegated in the timeframe specified in the 2012 round (obligation to delegate within 12 months).	Delegation follows a separate step with IANA for ccTLDs.	How will a variant gTLD and variant ccTLD be delegated if the primary TLD for them has not been delegated yet? The IDN EPDP allows any sequence within a timeframe. For ccTLDs there is no timeframe specified so it may be possible to delegate a variant ccTLD without delegating the primary ccTLD for an unspecified and possibly longer amount of time.	Low. Delegation timing for variants can be arbitrary even for gTLDs. It would also be useful to get IANA input.