IDN Program Update for ccNSO

Sarmad Hussain
Director, IDN Programs
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Overview

- IDNs at Top Level
  - IDN TLD Program
    - Root Zone Label Generation Rules (RZ-LGR)
    - LGR Toolset
    - IDN Variant TLD Implementation
  - IDN ccTLD Fast Track Process

- IDNs at Second Level for gTLDs
  - IDN Implementation Guidelines
  - Reference Second Level LGRs
Root Zone Label Generation Rules (RZ-LGR)

- IDNA2008 expects registries at all levels, including the top-level, will reduce opportunities for confusion by, for example, restricting characters or using variant techniques
  - RZ-LGR basis for such mechanism for the Root Zone
- RZ-LGR aims to:
  - Support IDN TLDs in scripts used by communities globally
  - Provide a secure and stable definition for valid IDN TLDs
  - Determine variant labels of IDN TLDs
RZ-LGR Process

- One Generation Panel per writing system (script)

Generation Panel 1

Generation Panel 2

Generation Panel 3

Integration Panel

RZ-LGR

Script 1
Script 2
Etcetera

Needs more work

Etcetera
Status of Generation Panels (GPs)

Label Generation Rules (LGR)

Generation Panel Status

Finalizing
Seated
Active
Forming

Maximal Starting Repertoire (MSR)

28+ Scripts
19+ GPs

Other:
- Hebrew
- Sinhala
- Thaana
- Tibetan
Status of RZ-LGR

RZ-LGR-2 Summary

- Arabic, Ethiopic, Georgian, Khmer, Lao and Thai scripts integrated
- Armenian finalized – to be integrated after LGRs of related scripts received
- Available at www.icann.org/idn
LGR Toolset (beta)

- Label Generation Rulesets (LGRs) used to generate domain name labels, as specified in [RFC 7940](https://tools.ietf.org/html/rfc7940)

- LGR Toolset currently allows for the following:
  - **Create** single LGR or merge multiple LGRs
  - **View** LGR in XML form or user friendly HTML form
  - **Use** a LGR to validate a label and determine its variant labels
  - **Manage** LGRs, by comparing or combining them
  - **Review** impact of a new or a revised LGR on existing labels

- Online beta deployment at: [https://lgrtool.icann.org/](https://lgrtool.icann.org/)

- Open source package(s) released with BSD license
  - Released at github: lgr-core, lgr-django, munidata

- User guide available for further details
Pre-Requisite for IDN Variant TLD Implementation

- Update relevant procedures to incorporate Root Zone Label Generation Rules (RZ-LGR) cohesively across IDN ccTLDs and IDN gTLDs

![Diagram showing RZ-LGR Tool with examples of valid and invalid TLD labels for different scripts like Arabic, Thai, and Ethiopic.]
IDN Country Code Top-Level Domains

ccTLDs: 58 for 40*

* Successfully evaluated IDN ccTLDs for total countries and territories
IDN ccTLD Fast Track Process

- Launched in late 2009
  - 58 IDN ccTLDs evaluated representing 40 countries/territories
  - 56 IDN ccTLDs delegated representing 38 countries/territories
  - Requests cover 33 languages in 19 scripts for

- Currently under review
  - Public comment in Jan 2015 raised issues with second similarity review process (EPSRP)
  - Board resolution in June 2015 to review EPSRP
  - ccNSO formed Working Group (WG) on EPSRP
  - Public comment in July 2016 on updated EPSRP guidelines
  - Final report published, incorporating feedback and discussion
  - ccNSO adopted the final report by WG on EPSRP
  - Joint ccNSO SSAC Response to ICANN Board
Background
- For second-level IDN registration policies and practices
- To minimize the risk of cybersquatting and consumer confusion

Relevance
- IDN ccTLDs – “expected” by the Fast Track Process
- gTLD – registries and registrars offering IDNs contractually bound
  - Required by most Registry Agreements
  - Required by many Registrar Agreements

IDN Guidelines Working Group members from ccNSO, GNSO, ALAC and SSAC

Final draft open for Second Public Comment until 10 Dec. 2017 and presented at ICANN 60
Topics of IDN Guidelines

- Total of 7 topics with 19 guidelines and Additional Notes:
  - Transition (4)
  - Format of IDN Tables (2)
  - Consistency of IDN Tables and Practices (4)
  - IDN Variant Labels (3)
  - Similarity and Confusability of Labels (4)
  - Publishing IDN Registration Policy and Rules (1)
  - Terminology (1)
  - Additional Notes
Reference Second Level IDN Tables

- Reference IDN tables in LGR format in [RFC 7940](https://tools.ietf.org/html/rfc7940)
- Finalized after a public comment process
- Can be referred to, as registries enhance IDN implementations
- Currently 27 LGRs [published](https://www.icann.org/publications)
  - Latin: Bosnian, Danish, English, Finnish, French, German, Hungarian, Icelandic, Italian, Latvian, Lithuanian, Norwegian, Polish, Portuguese, Spanish, Swedish
  - Cyrillic: Belarusian, Bosnian, Bulgarian, Macedonian, Montenegrin, Russian, Serbian, Ukrainian
  - Mixed scripts: Korean
  - Others: Chinese, Hebrew
Engage with ICANN and IDN Program

Thank You and Questions
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