IDN Variant TLD Program
ALAC Update

Monday, 23 June 2014

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Internationalized Domain Names and Variants

- Internationalized Domain Names (IDNs) use character sets such as Chinese, Arabic, Cyrillic, outside US-ASCII

- An IDN variant Top Level Domain (TLD) may look like or be considered exchangeable with another TLD by a user of the related writing system
IDN Variant TLD Program

• To support IDN variants in the root zone, the ICANN community, at the direction of the Board¹, undertook several projects to study and make recommendations on their viability, sustainability and delegation

• Being conducted in multiple phases, these projects form the basis of an implementation plan that will be considered by ICANN's Board of Directors

¹ https://www.icann.org/resources/board-material/resolutions-2010-09-25-en

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Phases Completed under the IDN Variant Program

PHASE 1 (2011)
- Case Studies:
  - Arabic
  - Chinese
  - Cyrillic
  - Devanagari
  - Greek
  - Latin

PHASE 2 (2011-12)
- Integrated Issues Report

PHASE 3 (2012-13)
- Projects:
  - P1 LGR XML Specification
  - P2.1 LGR Process for the Root Zone
  - P6 User Experience Study for TLD Variants

https://www.icann.org/resources/pages/reports-2013-04-03-en

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Phase 1: Script Case Studies

• Investigated issues relevant to scripts that need to be resolved to facilitate a good user experience for IDN variant TLDs
  o Arabic, Chinese, Cyrillic, Devanagari, Greek and Latin
  o 66 experts from 29 countries and territories
  o expertise in DNS, IDNs, linguistics, security & scalability, policy, registry/registrar operations
  o The reports posted in October 2011
Phase 2: Integrated Issues Report

- The six script case studies used to create a common framework of issues with the possible inclusion of IDN variant TLDs in the DNS root zone
  - ICANN was assisted by a coordination team comprised of representatives from the case study teams
    - Provided valuable language and script support
    - Served as reviewer to the structure and content of this report
  - Developed a working definition of ‘variants’
  - Clarified the issues and identified complexities
  - Recommended for additional work on the issues and identification of potential solutions
  - The report posted in December 2011
Phase 3: Label Generation Ruleset (LGR) and User Experience Implications

- Based on Phase 2, ICANN, in consultation with the community, identified and prioritized next steps as three projects:
  - Label Generation Ruleset Specification and Tool – P1
  - Label Generation Ruleset (LGR) Process for the Root – P2.1
  - Examining the User Experience Implications of Active Variant TLDs – P6
- The reports and protocol posted in March 2013
Phase 3: Project P1 - Representing LGRs in XML

- What Does XML-LGR Enable?

Simple validity checking, as well as variant label generation and disposition.
Phase 3: Project P2.1 - LGR Procedure

Generation Panels

- Generate proposals for script specific LGRs, based on community expertise and requirements

Integration Panel

- Integrates them into common Root Zone LGR while minimizing the risk to Root Zone as shared resource

Label Generation Rules (LGR)

- Which labels are permissible
- Which variant labels exist
- Which variant labels may be allocated

TO BE FORMED BY SCRIPT COMMUNITIES

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Phase 3: P6 – User Experience with variant TLDs

• If two or more variants are delegated, what are the user experience issues for the users:
  o End users
  o Power users (system admins, developers, etc.)
  o Registries, registrars, registrants

• Recommendations to provide an acceptable user experience

• Response elicited and received by SOs/ACs (GNSO, SSAC, ALAC) for further consideration

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Current Work: P2.2 Implementation of LGR

- Implementation of the LGR Procedure initiated
  - June 2013 - Call for SMEs for Integration Panel to develop Root Zone LGR
  - July 2013 - Call for Generation Panels to propose Root Zone Label Generation Rules
  - September 2013 - Seating of the Integration Panel
  - February 2014 – Arabic Generation Panel formed
  - March 2014 - MSR-1 released for public comment
  - April 2014 – Chinese Generation Panel proposal received
  - June 2014 - MSR-1 published
  - Outreach efforts for formulation of additional script Generation Panels

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MSR-1 Content in Numbers

- 22 scripts
  - Arabic, Bengali, Cyrillic, Devanagari, Georgian, Greek, Gujarati, Gurmukhi, Han, Hangul, Hebrew, Hiragana, Kannada, Katakana, Lao, Latin, Malayalam, Oriya, Sinhala, Tamil, Telugu and Thai

- ‘Common’ and ‘Inherited’ (shared)

- 32,790 code points
  - from 97,973 PVALID/CONTEXT code points defined in Unicode 6.3
    - 11,172 Hangul syllables and 19,850 Han ideographs

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Next Steps

• Focus on P2.2
  o MSR-2 will complete the repertoire
    ▪ adds some or all of the deferred scripts:
      • Armenian, Ethiopic, Khmer, Myanmar, Thaana, Tibetan
    ▪ possible further extensions where warranted
      • Including existing script repertoire
    ▪ In the meantime, MSR-1 is the basis for LGR-1
  o LGR-1 released after GP proposals are received and successfully evaluated
  o Continued outreach efforts

• Ongoing analysis for viability of implementation for P7

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LGR Procedure Depends on Community Work

• Generation Panels and LGR proposals are REQUIRED for IDN variants to be considered for delegation

• Get involved:
  • Form a generation panel
  • Volunteer to join a generation panel
  • Take part in public review of the MSR, LGR proposals, integrated LGR, etc.
  • Disseminate information to interested communities or individuals

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Outreach Efforts

• Outreach efforts focused on organizing GPs
  o Tool kit
    ▪ Outreach material for LGR
    ▪ Simplified GP formation process
  o Video on IDN
  o Email to ICANN executive mailing list to help to reach out to their contacts to create new GPs

• Keeping community informed
  o Targeted events
    ▪ IGF and regional IGFs
    ▪ ICANN meetings
  o Web announcements and updates on ICANN community Wiki
  o Brochures and collateral materials
Thank You