INTERNATIONALIZED DOMAIN NAME
IDN PROGRAM STATUS REPORT

6 November 2008

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Director, IDN Program
1 year of
IDN TLDs in the root for test purposes

IDN SLD registrations since
• 2001 (testbed)
• 2003 (protocol)
IDNs – what a year!

- Fast Track Draft Plan for public comments
  - Outstanding key issues:
    - Relation between IDN ccTLD operator, ICANN, community
    - Whether to establish a financial contribution model
    - Contention with existing TLDs and applied-gTLDs
  - Looking forward to settling issues at Mexico meeting

- IDN gTLDs in Draft Applicant Guidebook
  - Technical requirements the same as for Fast Track

- IDNA protocol revision
  - Latest consensus voting
  - Next meeting in Minneapolis November 2008
Detailed Status Report Topics

- IDN ccTLD Fast Track Process
- IDNs in New gTLDs
- IDN TLDs in IANA Function
- IDNA Protocol Revision
- IDN Local Initiatives
- IDN Guidelines
- IDN wiki
IDN CCTLD FAST TRACK PROCESS

Draft Implementation Plan released for public comments
Overall IDN ccTLD Fast Track Status

- The Fast Track is a process for introduction of a limited number of IDN ccTLDs that:
  - Are associated with the ISO3166-1 list
  - Will meet near term demand for ready territories /countries
  - Preserve stability of the DNS
  - Do not pre-empt the IDN ccPDP
  - Are not based on characters from the Latin script
  - Are non-contentious

- Fast Track Draft Implementation Plan released
  - Public comment period open through 8 Dec 2008
  - Report published of staff considerations of previously received public comments received for information
  - Report published over responses received from ccTLD managers and relevant public authorities
Draft Implementation Plan

- Requested by the ICANN Board at the Paris meeting:
  - Resolved (2008.06.26.05)…submit a detailed implementation report including a list of any outstanding issues to the Board in advance of the ICANN Cairo meeting in November 2008

- Based on the recommendations provided by the IDNC WG Final Report
  - and on received public comments

- Contains elements not part of the recommendations from the IDNC WG
  - Decisions needed for the process to be implemented in a sustainable way

- The plan is presented in modules to be detailed and finalized:
  - Module 1: General Introduction and Background Information
  - Module 2: Fast Track Eligibility Requirements
  - Module 3: TLD String Criteria and Requirements
  - Module 4: Technical Committee Considerations
  - Module 5: Fast Track Request and Evaluation Process
  - Module 6: TLD Delegation Process
  - Module 7: Discussion of Additional Topics
Mod-2: Fast Track Eligibility Requirements

- ISO3166-1 Representation
  - the country/territory must be represented in the ISO 3166-1 list
    - Exception is the EU, also eligible
  - ccTLD operator can act as requestor with support from country/territory provided

- Reason for limitations
  - Guiding Principle B and F from IDNC Final Report:
    - Experimental in nature
    - Not pre-empting the IDN ccPDP outcome
Mod-3: TLD String Criteria and Requirements

- Language and script criteria
  - official language for the country/territory
    - ISO 639 language in UNGEGN Manual
    - administrative language ISO 3166-1, column 9 or 10
    - relevant public authority confirmation
      - used in official communications
      - serves as a language of administration
    - Non-Latin scripts only

- Meaningfulness criteria
  - Name, part of the name, or acronym of country/territory

- Number of strings per country/territory
  - One (1) per official language or script

- Technical requirements
  - Standard DNS and specific IDN requirements
    - To be revised as the IDNA protocol revision is completed
Mod-3: IDN TLD Technical Requirements

- The string must be a valid internationalized domain name, as specified in technical standards http://www.icann.org/en/topics/idn/rfcs.htm. This includes the following:
  - Must only contain Unicode code points that are defined as “Valid”, and be accompanied by unambiguous contextual rules where necessary.
  - Must be fully compliant with Normalization Form C.
    - See examples in http://unicode.org/faq/normalization.html
  - The string must consist entirely of characters with the same directional property.
  - The string must not begin nor end with a digit (in any script).
The label must meet the relevant criteria of the ICANN Guidelines for the Implementation of Internationalized Domain Names. This includes the following, non-exhaustive, list of limitations:

- All code points in a single label will be taken from the same script as determined by the Unicode Standard Annex #24: Unicode Script Property.

- Exceptions are permissible for languages with established orthographies and conventions that require the commingled use of multiple scripts. However, even in the case of this exception, visually confusable characters from different scripts will not be allowed to co-exist in a single set of permissible code points unless a corresponding policy and character table is clearly defined.
Mod-4: Technical Committee Considerations

- Technical requirements are core criteria
- All IDN ccTLD strings in the Fast Track will undergo technical evaluation, proposed
  - By the entire Technical Committee
  - Issues identified will receive further review by 3-person panel
  - Decision reached within 30-days

- The Technical Committee may seek clarifications from the requestor if issues are identified
- The Technical Committee is to be formed
Mod-5: Fast Track Request and Evaluation Process

- Three step process as recommended by IDNC
- Preparation Stage:
  - Country/territory identifies & documents support for
    - language(s), script(s), name(s), variant and reg-policies
  - ICANN IDN & General Support Function is available
Mod-5: Fast Track Request and Evaluation Process

- The Request & Evaluation Stage:
  - Manual processing due to expected volume
  - Administrative Acceptability Check
  - String Confirmation Check (linguistic and technical)
  - Publishing of the requested string(s)
Mod-5: Fast Track Request and Evaluation Process

- The Delegation Process Stage:
  - Standard IANA Function and delegation Process
    - Detailed in Module 6
IDN Fast Track Implementation Process

1. Stage 1 - Preparations
   - Develop variant table(s)
   - Identify script(s) and language(s)
   - Select TLD Manager(s)
   - Document endorsement from script(s) community(ies)
   - Document endorsement from territory (accordance with IANA procedure)

2. Stage 2 - Request & Evaluation
   - Request Submission
   - Request Admissibility Process
     - Request Admissible?
       - Yes
         - Request Admissible
       - No
         - Request Not Admissible

3. Stage 3 - Delegation Process
   - IANA Delegation Function
   - IANA Function Ok?
     - Yes
       - Delegated
     - No
       - More Info

Further steps:
- Board Considerations
- Delegation Process
Mod-7: Discussion of Additional Topics

- Presentation of additional issues for community discussion
- Need to reach decisions for sustainable and finalization of implementation, on:
  - Ensuring compliance with IDN technical standards
  - Possible establishment of financial contributions.
  - IDN ccTLD operator association to ICANN community.
  - Compliance with consensus policies
  - Prevention of contention w/existing & applied-for TLDs
Responses to the RFI Letters

- # of letters to national governments: 252
- # of letters to ccTLD operators: 252
- # of received responses: 58
- # interested in Fast Track IDN ccTLD: 32
  - Listed IDN ccTLD string: 30
  - Not listed IDN ccTLD string: 10
  - Some not interested listed Latin based string
- Total 14 languages represented
- Earliest available: within 3 months
- Latest available: end 2010
IDNS IN NEW GTLD PROCESS

Applicant Guidebook Released
IDN gTLDs

- Included in the process for New gTLDs
- Draft Applicant Guidebook available
  - Public comment period through 8 December 2008
- IDN Technical requirements the same
  - No difference between an IDN gTLD and IDN ccTLD from technical standpoint
IDN TLDs IN THE IANA FUNCTION

Additional fields of information needed
IDN TLDs in the IANA Function

- A guide to the delegation procedure for existing country-code top-level domains is described at
- Requests for delegation of a ccTLD comprises
  - Formal template
  - Supporting documentation
- Augmentations for IDN ccTLDs relates only to IDN specifics, such as inclusion of:

<table>
<thead>
<tr>
<th>1. A-label</th>
<th>2. U-label</th>
</tr>
</thead>
<tbody>
<tr>
<td>3. Short-form of string (English)</td>
<td>4. Language of label (ISO630-1)</td>
</tr>
<tr>
<td>5. Language of label (English)</td>
<td>6. Script of label (ISO 15924)</td>
</tr>
<tr>
<td>7. Script of label (English)</td>
<td>8. Unicode code points (list)</td>
</tr>
</tbody>
</table>
Within the IETF and working towards “Last Call”
Rationale for the IDNA revision

- Proposed revision at IETF
  - RFC4690 requests the revision and provides suggestions to solutions to some problems

- Reasons and results of the revision:

<table>
<thead>
<tr>
<th>Current Version</th>
<th>Revised Version</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unicode version 3.2</td>
<td>Unicode version independent</td>
</tr>
<tr>
<td>Some/New characters excluded</td>
<td>All characters in Unicode will have a status</td>
</tr>
<tr>
<td>Not all words can be represented</td>
<td>Not all words can be represented</td>
</tr>
<tr>
<td>Exclusion Based:</td>
<td>Inclusion Based:</td>
</tr>
<tr>
<td>- Table based</td>
<td>- Property and procedure based:</td>
</tr>
<tr>
<td></td>
<td>- Protocol-valid (w/ context rules)</td>
</tr>
<tr>
<td></td>
<td>- Disallowed</td>
</tr>
<tr>
<td></td>
<td>- Unassigned</td>
</tr>
<tr>
<td>App developers have difficulty in understanding description of standard</td>
<td>Separates registration and resolution in detailed steps</td>
</tr>
</tbody>
</table>
IDNA Protocol Revision

- Overview of revision of documents, by Patrik Faltstrom:
  - http://stupid.domain.name/idnabis/
    - Overall rationale and explanation
    - Protocol: registration vs. resolution
    - Tables and procedures
    - Bidirectional issues solutions

- Several new versions has just been released during the ICANN Cairo meeting
  - These have been based on recent consensus vote and associated feedback
IDNA Protocol Consensus Votes

- Status today:
  - Consensus voting in the IETF IDN working group
    - Voting results will show how close we are to “Last Call”
  - Next IETF meeting is mid November 2008, Minneapolis, USA
  - IDNTLD technical requirements will change over time as the protocol revision is continued and finalized
  - Overall preference is to have the protocol revision finalized before introduction of IDNTLDs
    - Should this not be possible, then additional technical requirements are anticipated in both gTLD process and ccTLD Fast Track process
IDN GUIDELINES

Need to be revised following the IDNA revision
IDN Guidelines

- Will be a requirement for all new TLDs that implement IDNs
  - Including gTLDs and Fast Track ccTLDs
- Will be amended to be in coordination with final protocol revision
Language and script communities are merging on local rules
Example of Local Initiatives: Arabic Script IDN Working Group - ASIWG

- An open, self-organizing group that consists of interested parties in the implementation of Arabic script in IDNs
- Its ultimate goal is to develop a unified Arabic script table along with all variants, and to serve as a best practice for other scripts to follow
Recommendations so far

- Variants should be registered/reserved to the same registrant
- Restrict the 3 Arabic sets of numerals from mixing at the protocol level
- Dealing with <space> is more of an application layer issue, to be resolved later and potentially by a different group
- At this stage, implement IDNs without Harakat/Tashkeel (Diacritics)
Other ongoing work

- Complete the identification of visually confusible characters
- Agreeing on Pvalid Characters / Code points that are not to be included in the Unified Arabic Script Table, at this stage at least
- Coming up with guidelines on the registration process for languages implementing Arabic Script
- Outreaching to other language communities
IDN WIKI

Adding languages/scripts and font features
IDNA protocol and IDN wiki – try it out

- http://idn.icann.org
- http://josefsson.org/idn.php
  - IDNA ToASCII
  - IDNA ToUnicode

- If you can’t type in an IDN then search for your favorite newspaper online and copy-paste it
  - or you can copy-past text from the IDN wiki

- Try copy / paste between applications you normally use
IDN wiki at http://idn.icann.org

Welcome to the IDN TLD evaluation gateway!

There are new articles on Additional languages and Technical...
Status of the .test wiki

- **Purpose of the IDNwiki:**
  - Introduce users to IDN TLDs
  - Applications test environment for usability
  - Registry information about user problems

- **Conduct an experiment with IDN TLDs**
  - not a pre-requisite for production in root zone
  - no registrations are available

- **Functions as a “normal wiki”, user access**
Internationalization of the internet means that
the internet is equally accessible from all
languages and scripts
شكراً لكم

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http://icann.org/topics/idn