Internationalized Domain Names
Agenda

• Are we there yet?
• Other top IDN question from end-users
• IDN TLD wiki (".test")
• Protocol revision status
• Processes within ICANN
  – IANA, IDN ccTLDs and gTLDs
• IDN Guidelines
  – From ICANN and very importantly local developments
Are we there yet?

• IDNs have existed as SLD since 2003
  – under protocol standards
• The community also needs IDN TLDs
  – 北京大学.中国
  – [xn--1lQ90Ic7FzpC.xn--fiQs8S]
• Technical and Policy work under way to provide the fully localized solution
  – Technical standard under revision
  – New allocation processes underway
    • existing processes does not work for IDNs
If I have registered [idn.tld] then will I also be the registrant of [idn.idn-tld]?

- Policy considerations
  - related to IP rights vs. competition options
  - difficult to do meaningful translation of existing strings

- GNSO Policy:
  - No precedence for existing registries
  - Objection rights exists for confusingly similarity

- ccTLD operators and GAC are considering needs for IDN ccTLD aliasing solution

- If requested then technical solution is needed
### Status of the .test wiki

<table>
<thead>
<tr>
<th>Script</th>
<th>Language</th>
<th>SLD.TLD U-labels</th>
<th>SLD A-label</th>
<th>TLD A-label</th>
</tr>
</thead>
<tbody>
<tr>
<td>Arabic</td>
<td>Arabic</td>
<td>مثال.اختبار</td>
<td>xn--mgbh0fb</td>
<td>xn--kgbechtv</td>
</tr>
<tr>
<td>Arabic</td>
<td>Persian</td>
<td>مثال.آزمایشی</td>
<td>xn--mgbh0fb</td>
<td>xn--hgbk6aj7f53bba</td>
</tr>
<tr>
<td>Chinese, simplified</td>
<td>Chinese</td>
<td>例子.测试</td>
<td>xn--fsqu00a</td>
<td>xn--0zwm56d</td>
</tr>
<tr>
<td>Chinese, traditional</td>
<td>Chinese</td>
<td>例子.測試</td>
<td>xn--fsqu00a</td>
<td>xn--g6w251d</td>
</tr>
<tr>
<td>Cyrillic</td>
<td>Russian</td>
<td>пример.испытание</td>
<td>xn--e1afmkfd</td>
<td>xn--80akhbyknj4f</td>
</tr>
<tr>
<td>Devanagari</td>
<td>Hindi</td>
<td>उदाहरण.परीक्षा</td>
<td>xn--p1b6ci4b4b3a</td>
<td>xn--11b5bs3a9aj6g</td>
</tr>
<tr>
<td>Greek</td>
<td>Greek</td>
<td>παράδειγμα.δοκιμή</td>
<td>xn--hxajbheg2az3a1</td>
<td>xn--jxalpdlp</td>
</tr>
<tr>
<td>Hangul</td>
<td>Korean</td>
<td>실례.테스트</td>
<td>xn--9n2bp8q</td>
<td>xn--9t4b11yi5a</td>
</tr>
<tr>
<td>Hebrew</td>
<td>Yiddish</td>
<td>ביניישלי.CTest</td>
<td>xn--fdbc5d8ap9b8a8d</td>
<td>xn--deba0ad</td>
</tr>
<tr>
<td>Kanji Hirigana, and Katakana</td>
<td>Japanese</td>
<td>例え.テスト</td>
<td>xn--r8jz45g</td>
<td>xn--zckzah</td>
</tr>
<tr>
<td>Tamil</td>
<td>Tamil</td>
<td>தமிழ்தெஸ்ட்</td>
<td>xn--zkc6cc5bi7f6e</td>
<td>xn--hlcj6aya9esc7a</td>
</tr>
</tbody>
</table>
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
Status of the .test wiki

• Adding new “features”
  – New languages:
    • Amharic (4th level under idn.icann.org)
    • Hebrew (2nd level under existing TLD)
    • coming: Thai (4th level)
  – Process available for others languages
  – DNSSEC signing the zones
  – Exploring IDN email addition
    • Experimental status of technical standard
IDNwiki Access

• IDNwiki can be accessed at:
  – http://idn.icann.org
  – Thanks to users, moderators, and wiki staff,
    • includes useful information about IDN
    • in all available languages
  – Please:
    – Visit the site
    – Try IDNs
    – Report on results
    – Use information
    – Add information
Status of the IDNA revision

• Proposed revision at IETF
  – from extremely hard working participants

• Unicode version independent
  – Three categories by procedure not table
    • Protocol-valid (some w/ contextual rules)
    • Disallowed
    • Unassigned

• Attempting to plan for educational sessions on the difference between protocol versions
  – One short initial session tomorrow morning
    • John Klensin and Cary Karp
Status of IDNA revision

Basis in RFC4690, describing issues

• draft-klensin-idnabis-issues-07.txt
  – overall rationale and explanation

• draft-klensin-idnabis-protocol-04.txt
  – registration vs. resolution

• draft-faltstrom-idnabis-tables-05.txt
  – category operations procedure
  – not table, but holds Unicode-5.0 result for reference

• draft-alvestrand-idna-bidi-04.txt
  – to allow combining marks at end of string, by test
IANA management of IDN TLDs

• Process for insertion of IDN TLDs in root
  – exists for test domains only (IDN .test)
    • Developed w/ RSSAC & SSAC recommendations
  – need review, revision, and implementation
  – includes emergency removal procedure
    • for test IDN TLDs only
  – Initial review scheduled by IANA staff
    • Before 30 June 2008
    • Result to be published publicly
ICANN Processes

Country-code IDN TLDs – Fast Track
- Deploy non-contentious ccTLD equivalents quickly
- Where demand/readiness exists
- Don’t wait for full ccNSO PDP
- Tomorrow, half day session on policy issues and methodology

Country-code IDN TLDs – Long Term
- Full policy that caters for all
- Follows the full ccNSO Policy Development Process
- Issues paper scheduled for publication by ICANN Paris meeting (Jun08)

New Generic TLDs
- New ongoing policy for new gTLDs
- Includes internationalized domains
- Focus on non-ASCII squatting & confusingly similarity solutions
IDN Guidelines

• ICANN IDN Guidelines
  – Need revision to follow IDNA revision
  – Developed by ccTLD and gTLD registry operators

• Local community guidelines, such as
  – Informal ‘Arabic script’ meeting last week
    • Important development
    • Need for Cyrillic linguistic group to convene
  – language experts participate in IDNA review
    • Review of PVALID characters
  – In addition to protocol, a need for:
    • local registration policies and variant tables
Summary – everything is under way

• Protocol – general validity of character and in some extend string validity
• IDN Guidelines – implementation of protocol, and global rules for scripts and languages
• Local Directions – local rules for scripts and languages
  – Need for Cyrillic script and linguistic group to convene
• Registry testing and implementations
• Application testing and implementations
• Allocation and Delegation Procedures
• Registry, Registrar, Reseller, Registrant
Thank You for Your Time
Questions?