The Persian Domain Names Project at IRNIC

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The Test Bed: Current Status

- The project started in 2002
- Policies for the test bed are finalized
- The registration (server-side) software is in its latest phases of development
- We are planning to start registering IDNs in late December
- The duration will be six months
The Test Bed: Policies

- Full conformance to IDNA standard
  - No software developed for the client side, available standard browsers and plug-ins will be used
- Currently only in Persian, the only official language of Iran (no Azerbaijani, Kurdish, Balochi, Arabic, ...)

The Test Bed: Policies

- We may be having about thirty Persian (temporary) zones under .IR
- These zones will work like TLDs if you set a certain experimental machine as your DNS server
- Client-side: Works in Mozilla-based browsers, existing plug-ins for Microsoft browsers
The Test Bed: Policies

- We will be *definitely* purging all the test bed labels, and restart from scratch for real labels.
- Participants in the test bed may get certain sunrise privileges.
- No financial exchange ($) will be happening in the test bed, but a participant should already be a customer.
Technicalities: Basic Labels

- **Allowed:** just Persian letters, Persian digits, and hyphen-minus.
- **Disallowed:** diacritical marks.
- **Already ignored by Stringprep:** Zero Width Joiner and Zero Width Non-Joiner.
- **IDNA bidirectional restrictions will remain.**
  - Labels should start and finish with letters.
  - Additionally, we don’t allow labels with no letters.
Technicalities: Bundles

- If European or Arabic-Indic digits are used, or certain Arabic variants of Persian letters are requested, they will be “normalized” first.

- A bundle of at most six labels will be defined for possible non-standard configurations of end users.
## Technicalities: Bundles

<table>
<thead>
<tr>
<th></th>
<th>Persian</th>
<th>Arabic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persian</td>
<td>کی ی</td>
<td>کی ی</td>
</tr>
<tr>
<td>۱۲۳۴۵۶۷۸۹۰</td>
<td>کی ی</td>
<td>کی ی</td>
</tr>
<tr>
<td>Arabic-Indic</td>
<td>کی ی</td>
<td>کی ی</td>
</tr>
<tr>
<td>۱۲۳۴۵۶۷۸۹۰</td>
<td>کی ی</td>
<td>کی ی</td>
</tr>
<tr>
<td>European</td>
<td>کی ی</td>
<td>کی ی</td>
</tr>
<tr>
<td>۱۲۳۴۵۶۷۸۹۰</td>
<td>کی ی</td>
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</tr>
</tbody>
</table>

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Technicalities: The Process

- Checking validity
  - We only get here if the label is not LDH
  - No need to implement all IDNA details (policy takes care of the rest)
- Checks:
  - All letter should be in the repertoire
  - Label should start and end with letters
Technicalities: The Process

- “Normalization” to proper Persian letters and digits
  - This will be considered the registered label
- Removing what Stringprep removes
  - ZWNJ and ZWJ
Technicalities: The Process

- Computing the bundle
  - At most six, but usually less

- Computing the ASCII equivalents using `ToASCII`
  - If the main registered label is too long after `ToASCII`, the registration will be rejected
  - If alternate bundle members get too long, we will only remove the failed cases
Technicalities: The Process

- Finally, we’ll show the registered label as an image: كلاً كلاً instead of “كلاً كلاً”.

- So the user will not see wrong things because of bad or non-standard fonts or rendering technology.
After the Test Bed

- We will possibly choose some of those labels and start lobbying ICANN to get those accepted as Persian gTLDs.
- Or..., we may try to lobby for “ایران” (“.iran”, in the Persian language, as written in the Arabic script) or something like that, and use that/those under this TLD.
After the Test Bed

- Or..., we may purge the whole idea after the experiment, and only write a report on what we learned.
- It will all depend on the experience, the feedback and the statistics.
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