Universal Acceptance of IDN TLDs & Draft JIG (ICANN Joint ccNSO / GNSO IDN Group) Recommendations

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What does “Universal Acceptance” Mean?
Acceptability Issues Example
Acceptability Issues Example

Permanent Home Address Line 1:

Permanent Home Address Line 2:

City:

Zip Code:

State: CA

Note: You must be a U.S. resident.

SSN:

Date of Birth: (MM/DD/YYYY)

You must be 18 or older, 19 in Alaska.

Mother’s Maiden Name:

E-mail Address:
Please enter a valid email address.
Why are new TLDs not accepted?
Example of Hard-Coded List

473  "ua",   // Ukraine
474  "ug",   // Uganda
475  "uk",   // United Kingdom
476  "um",   // United States Minor Outlying Islands
477  "us",   // United States of America
478  "uy",   // Uruguay
479  "uz",   // Uzbekistan
480  "va",   // Vatican City State
481  "vc",   // Saint Vincent and the Grenadines
482  "ve",   // Venezuela
483  "vg",   // British Virgin Islands
484  "vi",   // U.S. Virgin Islands
485  "vn",   // Vietnam
486  "vu",   // Vanuatu
487  "wf",   // Wallis and Futuna
488  "ws",   // Samoa (formerly Western Samoa)
489  "ye",   // Yemen
490  "yt",   // Mayotte
491  "yu",   // Serbia and Montenegro (originally Yugoslavia)
492  "za",   // South Africa
Example of Hard-Coded List

```
$_cctld = array(
    'ac',
    'ad','ae','af','ag',
    'ai','al','am','an',
    'ao','aq','ar','as',
    'at','au','aw','ax',
    'az','ba','bb','bd',
    'be','bf','bg','bh',
    'bi','bj','bm','bn',
    'bo','br','bs','bt',
    'bu','bv','bw','by',
    'bz','ca','cc','cd',
    'cf','cg','ch','ci',
    'ck','cl','cm','cn',
    'co','cr','cs','cu',
    'cv','cx','cy','cz',
    'de','dj','dk','dm',
);
```
Example of String Length Check

But you can do much more with regular expressions. In a text editor like EditPad Pro or a specialized text processing tool like PowerGREP, you could use the regular expression \\[A-Z0-9. _%+-]+@[A-Z0-9.-]+\.[A-Z]{2,4}\b to search for an email address. Any email address, to be exact. A very similar regular expression (replace the first \b with A and the last one with $) can be used by...
What has been done?
Background & Related Works

• Introduction of New gTLDs longer than 3 characters in 2000 (and 2004)
• Introduction of IDN ccTLD Fast Track in 2010

• August 2003: SSAC Report
  – Support Of New Top-Level Domains By Internet Infrastructure Operators And Application Providers
SSAC Recommendations (2003):

1. ICANN should develop an advisory regarding support for new TLDs and GNSO constituencies should publicise this advisory.

2. Recommend that the IAB consider issuing an informational RFC advising of the issue.

3. Internet infrastructure providers should test the capability of the software to support new TLDs.

4. Internet software application developers should review and upgrade their software.

5. A central repository of known commonly used software that has compatibility problems.

6. ICANN should examine compatibility problems with the introduction of new TLDs in 2001 as a topic in its Proof of Concept study.
TLD Verification Code

Public Repositories (5)

- uniaccept-python
  - Python
  - Last updated 7 days ago

- uniaccept-java
  - Java
  - Last updated 19 days ago

- uniaccept-c
  - C
  - Last updated 20 days ago

Organization Members (0)

No public members
Draft outreach materials

Collateral Proposal

Existing Project Pages

New Dedicated Microsite

acceptdomains.org

Does your software or website support the whole Internet?

What should I do?

1. Find a new domain with an IDN label and URL
2. Test your software or website for IDN compatibility
3. Update your software or website to support IDN
4. Promote the use of IDN domains in your industry

Specific technical info pages on individual topics

Form for end-users to report broken software and websites

Having a problem with a website?
Background & Related Works

• Unique Authoritative Root
  – IAB: Technical Comment on the Unique DNS Root
    RFC 2826: http://www.ietf.org/rfc/rfc2826
  – ICANN: ICP3: A Unique, Authoritative Root for the DNS

• JIG Discussion and Public Comments
  – Single Character IDN TLDs
  – IDN TLD Variants

• VIP Study Team Reports & User Experience Report
PUBLIC SUFFIX LIST

LEARN MORE ABOUT THE PUBLIC SUFFIX LIST

The Public Suffix List is a cross-vendor initiative to provide an accurate list of domain name suffixes, maintained by the hard work of Mozilla volunteers, and by submissions from registries, to whom we are very grateful.

The usefulness of this can be seen if we take the example of cookies. In the past, browsers used an algorithm which only denied setting wide cookies for top-level domains with no dots (e.g. com or org). However, this did not work for top-level domains where only third-level registrations were allowed (e.g. co.uk). In these cases, websites could set a cookie for .co.uk which would be passed onto every website registered under co.uk.

Since there was and remains no algorithmic method of finding the highest level at which a domain may be registered for a particular top-level domain (the policies differ with each registry), the only method is to create a list. This is the aim of the Public Suffix List.

Software using the Public Suffix List will be able to determine where cookies may and may not be set, protecting the user from being tracked across sites.

As well as this, the Public Suffix List can also be used to support features such as site grouping in browsers. By knowing where the user-controlled section of the domain name begins and ends, browsers can group cookies and history entries by site in a way that couldn’t easily be done before.

For more information, please contact us.

Uses

These are some of the uses of the list we know about. If you are using it for something else, you are encouraged to tell us, because it helps us to predict the potential impact of changes.
List of Internet top-level domains

The following is a list of Internet top-level domains (TLDs). The top-level domain article provides the background information. The official list of all top-level domains is maintained by the Internet Assigned Numbers Authority (IANA).[1]

A number of Proposed top-level domains are under consideration by ICANN/IANA.

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## Generic top-level domains

<table>
<thead>
<tr>
<th>Name</th>
<th>Entity</th>
<th>Notes</th>
<th>IDN</th>
<th>DNSSEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>.aero</td>
<td>air-transport industry</td>
<td>Must verify eligibility for registration; only those in various categories of air-travel-related entities may register.</td>
<td>No</td>
<td>No</td>
</tr>
<tr>
<td>.asia</td>
<td>Asia-Pacific region</td>
<td>This is a TLD for companies, organizations, and individuals based in the Asia-Pacific region.</td>
<td>Yes</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Example of Hard-Coded List

```php
$_gtld = array(
    'aero',
    'biz',
    'cat',
    'com',
    'coop',
    'edu',
    'gov',
    'info',
    'int',
    'jobs',
    'mil',
    'mobi',
    'museum',
    'name',
    'net',
    'org',
    'pro',
    'travel',
    'asia',
    'post',
    'tel',
    'geo',
);
```

This is an array of the official generic top-level domains.
JIG: Joint ccNSO-GNSO IDN Working Group
JIG Discussions

• Bi-Weekly Conference Calls
  – since March 2010
  – Changed to Monthly Calls (since Prague: June 2012)

• Issues of Common Interest identified:
  1. Single Character IDN TLDs
  2. IDN TLD Variants
  3. Universal Acceptance of IDN TLDs

• Face to face meetings
  – Brussels / Cartagena / San Francisco / Singapore / Dakar / Costa Rica / Prague
  – Workshop on Single Character IDN TLD at Cartagena
Universal Acceptance of IDN TLDs

Initial Report Published Jan 6, 2012
Draft Final Report Published Jun 25, 2013
Public Comment Periods Completed
Areas of Policy and Coordination

1. Are there policy aspects to be considered and/or policies to be implemented at ICANN?

2. Which organizations should ICANN work with on the issue and how should ICANN identify such

3. Which areas should ICANN focus its efforts and exert its influence on?

4. What types of work should ICANN and the ICANN community place its efforts and priorities on?
Proposed Recommendations

A. Recommend IDN TLD operators (including IDN ccTLD, IDN gTLD and IDN gTLD Accredited Registrars) to support **Universal Acceptance of IDN TLDs in their own systems**

B. Allocate **specific resources for the advocacy** of Universal Acceptance beyond the development of informational materials and toolkits

C. Development of **informative reference materials for new IDN TLDs** (including gTLD and ccTLD) to handle issues of Universal Acceptance

D. Direct efforts, lead by staff, with the participation from the community, for further studies to investigate the scope of the issue and what other services or actions could be taken by **ICANN to support the Universal Acceptance of IDN TLDs beyond outreach and awareness campaigns**
Get Our Own Act Together

Recommendation A
someone@somedomainname.中国

Address
123 Nathan Road

Country
Hong Kong

City
Tsim Sha Tsui

Postal/Zip Code
HK

Phone
+852 98765432

Fax
+852 98765431
Recommendation A

• Recommend IDN TLD operators (including IDN ccTLD, IDN gTLD and IDN gTLD Accredited Registrars) to support Universal Acceptance of IDN TLDs in their own systems
  – IDN gTLDs and IDN ccTLDs
  – IDN gTLD Accredited Registrars
  – Name servers, email addresses, etc.

• Proposed Implementation:
  – Updating of ICANN IDN Guidelines
Identify as a Strategic Initiative for ICANN

Recommendation B
Recommendation B

• Allocate specific resources for the advocacy of Universal Acceptance beyond the development of informational materials and toolkits
  – a critical factor to foster and ensure competition, consumer trust and choice in the DNS marketplace
  – Common interest between gTLDs & ccTLDs

• Proposed Implementation:
  – ICANN board and staff to take into consideration and identify as an item in budget & strategic plan
Support for New IDN TLDs

Recommendation C
Recommendation C

• Development of informative reference materials for new IDN TLDs (including gTLD and ccTLD) to handle issues of Universal Acceptance
  – draw on and consolidate the experience from earlier launches of TLDs (including gTLDs and ccTLDs) to produce a set of informative reference materials to assist new TLD operators

• Proposed Implementation:
  – Work through Staff Universal TLD Acceptance Team
Beyond Outreach & Awareness

Recommendation D
Recommendation D

• Direct efforts, lead by staff, with the participation from the community, for further studies to investigate the scope of the issue and what other services or actions could be taken by ICANN to support the Universal Acceptance of IDN TLDs beyond outreach and awareness campaigns
  – Engaging with community beyond ICANN
  – Establishing Liaisons with emerging industry standards
  – Consider additional services (e.g. 2LDs under TLD)
  – Proactive Advocacy & Surveys

• Proposed Implementation
  – Through ICANN staff team with support from community
JIG Next Steps

- Completion of Final Report
- Seek adoption by respective councils (ccNSO and GNSO)
- Follow up with ICANN Staff team on implementation
More Volunteers Welcome…

Just email me: edmon@dot.asia
Every .Asia Domain Contributes to Internet Development in Asia

love.from.asia
Edmon Chung
<edmon@registry.asia>