

Universal Acceptance of All TLDs

Round table discussion
14 March 2012



Agenda

- Overview
- Examples
- Past work
- Discussion



The Issue

Internet Software has compatibility problems as it checks user input against expected behavior



ICANN's Role

- Limited technical coordination
- Collaboration with ICANN stakeholders
- Raising awareness inside and outside ICANN community

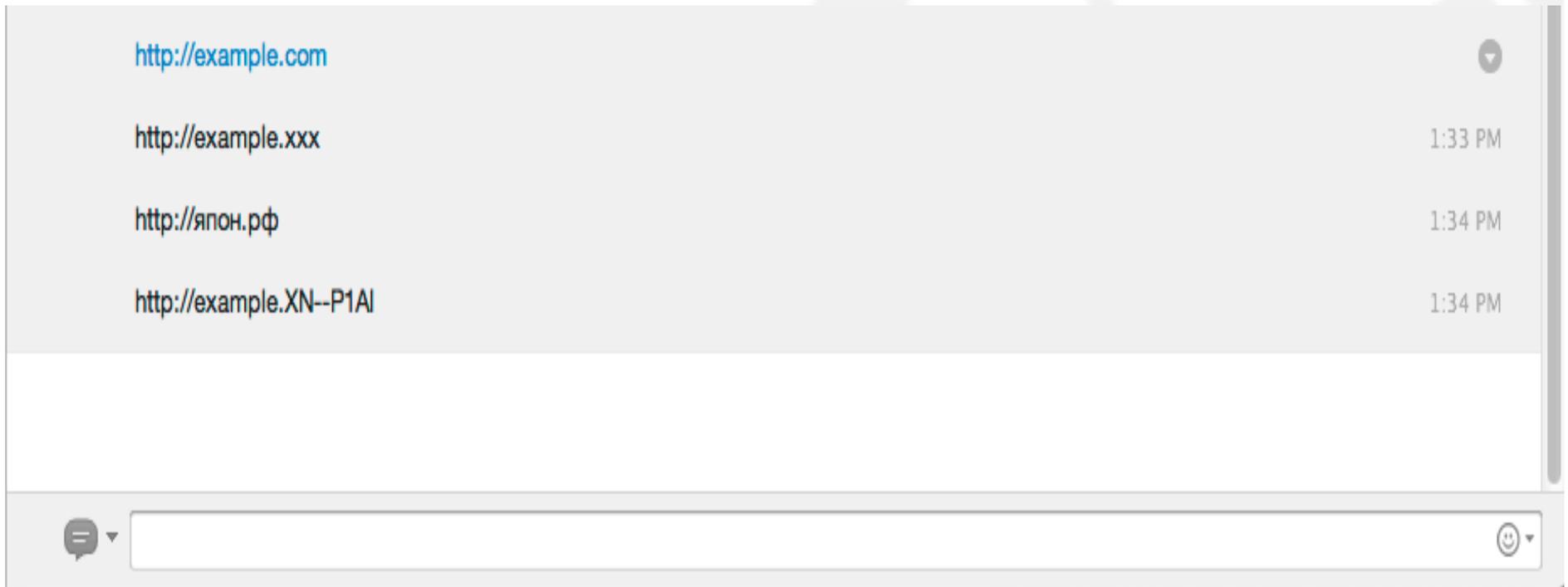


Not Covered In This Session

- What should or should not be added to the root zone in the future
- Policy aspects on whether access to a certain TLD should be restricted



Acceptability Issues Example



Acceptability Issues Example

Permanent Home Address Line 1*:

Permanent Home Address Line 2:

City*:

Zip Code*: -

Note: You must be a U.S. resident

SSN*: - -

Date of Birth*: / / (MM/DD/YYYY)
You must be 18 or older, 19 in Al

Mother's Maiden Name*:

E-mail Address: @ .

State*: CA

to P.O.

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- name
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- pro
- us



Examples of Causes

- Improper domain checking logic
- Browsers are not upgraded



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 Hard-Coded List

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

[line 108]

Generic top-level domain

This is an array of the official generic top-level domains.



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 `\b[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 (unless the first \b with A and the last one with {2,4}) can be used to

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Activities to Date



Activities to Date: 2003-2004

- SSAC recommendations:
 - Develop an advisory
 - Create central repository of known issues
 - Internet Infrastructure providers and Internet software application developers review and test software to support new TLDs
- IAB - RFC3696
 - “Application Techniques for Checking and Transformation of Names”*



Activities to Date: *2004 to Now*

- ICANN created discussion forum and dedicated webpage
- Prepared technical recommendations
- Posted TLD verification tool at:
<https://github.com/icann>



Technical Recommendation

- Do you need to check domain validity?
 - If not, don't do it. Rethink why you do it.
 - e.g. if it is an email that needs to opt-in, will be caught that way
- If so, is it an online application?
 - If so, use a DNS query which is instant and up-to-date, don't rely on a fixed list.
- Last case scenario
 - Use a fixed list of TLDs, but make sure it has an update mechanism (e.g. once per day)

TLD Verification Code

Public Repositories (5)

All Repositories Sources Forks Mirrors

 **uniaccept-python** Python  

Universal Acceptance Toolkit for Python
Last updated 7 days ago

all commits commits by owner 52 week participation

 **uniaccept-java** Java  

Universal Acceptance Toolkit for Java
Last updated 19 days ago

all commits commits by owner 52 week participation

 **uniaccept-c** C  

Universal Acceptance Toolkit for C
Last updated 20 days ago

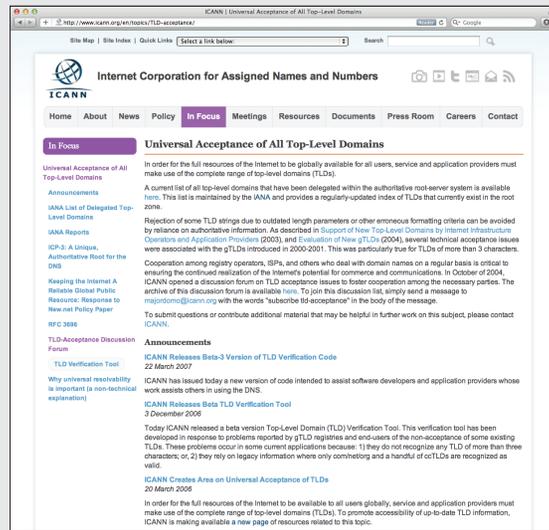
Organization Members (0)

No public members

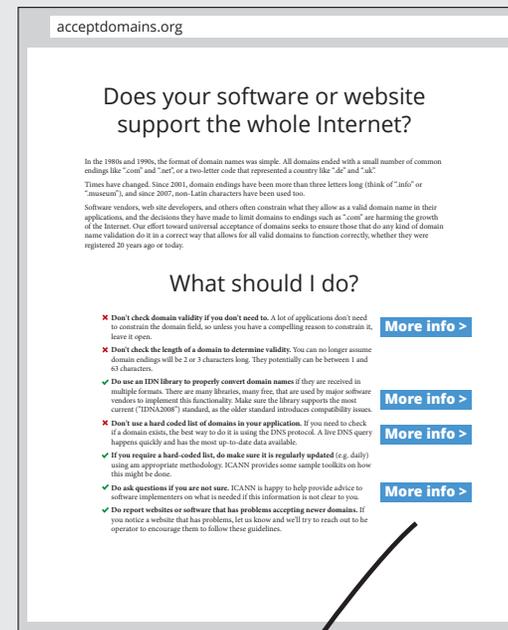
Draft outreach materials

Collateral Proposal

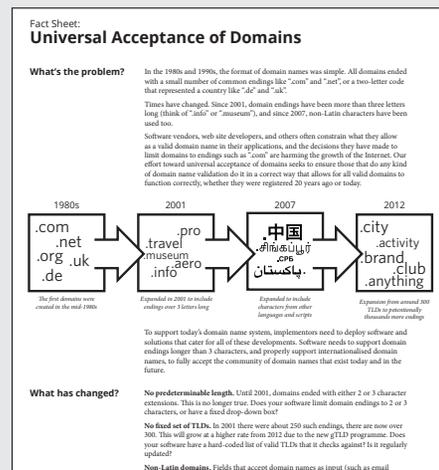
Existing Project Pages



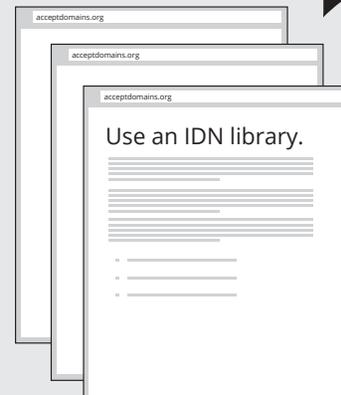
New Dedicated Microsite



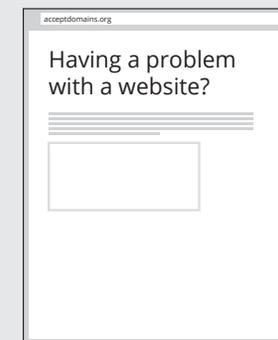
New Fact Sheet



Specific technical info pages on individual topics



Form for end-users to report broken software and websites



Activities to Date: *2004 to Now*

- JIG WG published Initial Report on Universal Acceptance of IDN TLDs
- Consultation with impacted parties



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Addressing the Problem as a Community Effort



Comments... Suggestions...

tld-acceptance@icann.org



Thank You



Discussion Points

1. What are the existing issues?
2. Who should be addressing the existing issues?
3. How can ICANN promote Universal Acceptance of all domains effectively?

