

# 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

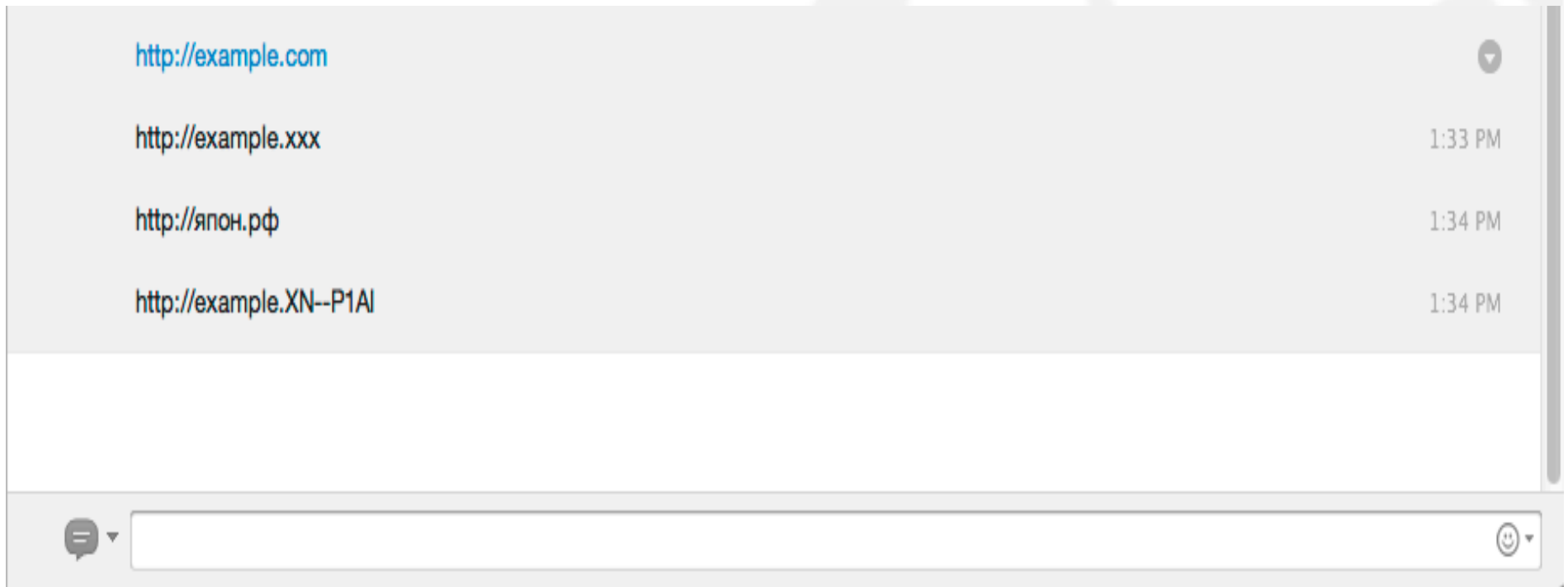


# Not Covered In This Session

- 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\*:

State\*:

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:  @  .

Domain dropdown menu:

- aero
- biz
- com
- coop
- edu
- gov
- info
- mil
- museum
- name
- net
- org
- 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

```
$_gTld = 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 @ and the last one with \$) 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

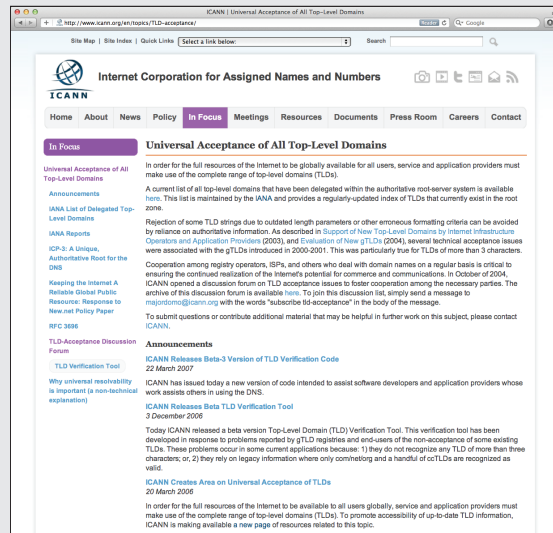
## Organization Members (0)

No public members

# Draft outreach materials

## Collateral Proposal

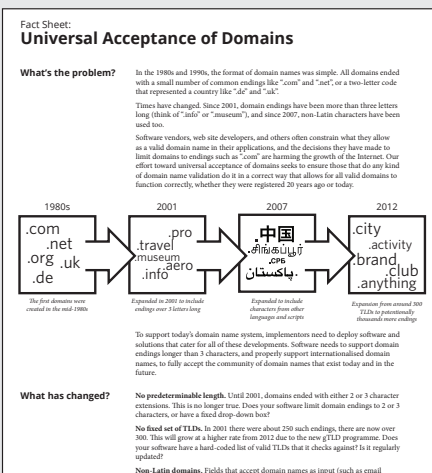
### Existing Project Pages



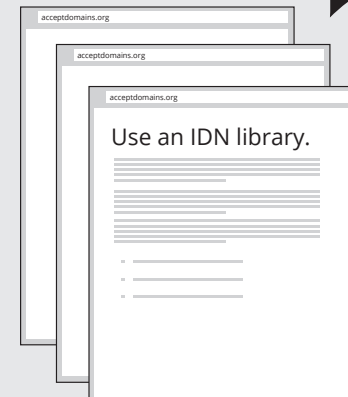
### New Dedicated Microsite



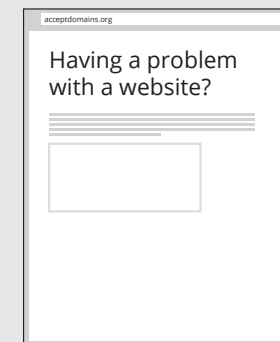
### New Fact Sheet



### 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](mailto: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?

