



TLD Universal Acceptance Initiative

Agenda

- Introduction & Background
- Scope of the Initiative
- Problems, Examples, Etc.
- Network of Interests
- High-level Roadmap

Introduction & Background

What is the Issue?

If names in a TLD aren't useable,

The TLD isn't useable

What are Problems?

- Name Ownership and Operation
- Web Browsing
- E-mail Delivery
- Content Search and Examination
- User Interface
- Identifier security
- E-commerce
- Social Media
- Anti-virus/Spam
- Mobile Devices
- ...dynamic set...
- ...legacy code...

Activities to Date



ICANN related efforts

- **TLD Universal Acceptance**
 - An effort to remove obstacles to the use of newly created TLDs
- **IDN TLD Universal Acceptance**
 - An effort to enable non-Latin script TLDs
- **Joint IDN Group (JIG) Final Report on Universal Acceptance of IDN TLDs**
 - ICANN stakeholder groups combined statement

Other Studies/Activities

- EURid’s “World Report on IDN Deployment”
- APTLD’s “Addressing the issue of Universal Acceptance of IDN TLDs”
 - Member meeting in May dedicated a day to the topic
- A topic of Domain Name Association’s Technical Committee
- Fairwinds Partners TLD Compatibility WG

Where (some) Solutions Lie

- GNU's libidn (open source)
 - <http://www.gnu.org/software/libidn/>
- Microsoft's "Handling Internationalized Domain Names"
 - [http://msdn.microsoft.com/en-us/library/windows/desktop/dd318142\(v=vs.85\).aspx](http://msdn.microsoft.com/en-us/library/windows/desktop/dd318142(v=vs.85).aspx)
- Twitter's "twitter text"
 - <https://dev.twitter.com/docs/tco-url-wrapper/how-twitter-wrap-urls>

Scope of the Initiative

Universal Acceptance

- Combine work on
 - TLD Universal Acceptance
 - IDN TLD Universal Acceptance
 - other work such as Internationalized Email
- *If names in a TLD aren't useable, the TLD isn't useable*

Scope Limits

- The initiative addresses what can be considered “errors” or “false positive” rejections of names, including TLDs
- The initiative is not addressing administrative prohibitions on names, including TLDs

Problems, Examples, Etc.

Name Ownership and Operation

- Lifecycle of name ownership
 - Registration of name and contacts
 - Use of name (such as web, email)
 - Management of name (transferring registration)

Web Browsing

- Same Origin Policy
 - Determining relationships between names
- Treatment and Display of Scripts
 - Assumptions made about what user can read
 - Defense against “look alike” attacks
- *Is the Public Suffix List the answer?*

E-mail Delivery

- Configuration of mailbox name
 - Internationalized email (IETF's RFC 6530)
- Spam rating and filtering
 - Rules for what is and what isn't "real email."

Content Search and Examination

- Language Assumptions
- Ranking of Results
- Malware Detection

User Interface

- Drop-down menus (for example)
 - Choice is limited
- Right-to-left and left-to-right scripts
 - As scripts mix, will they overwrite each other
- Text-to-URL conversion
 - Interpreting meaning of strings

Identifier security

- URL
 - Represent “things”
- Email Addresses
 - Used to identify people
- Domain Validation Certificates
 - Representing hosts

E-commerce & Social Media

- Security
 - As mentioned in earlier slides
- Access to market
 - Vendors want to reach new/bigger audiences
- **Plus specific concerns**

Anti-virus/Spam

- Security
 - Want to judge URLs, email addresses
 - A form of reputation building
 - Heavily based on hueristics
 - Which can be prone to false positives

Mobile Devices

- All the issues listed apply to traditional computers
- There's a parallel universe, bigger and more of a driver for growth

Network of Interests



Domain Name Registration

- ICANN
- Registries
- Registrars
- DNS Hosting



Protocol and Operational Standards

- IETF/IAB
- W3C
- CA/Browser Forum



Industry Forums

- TLD Registry and Registrar Associations
 - AFTLD
 - APTLD
 - CENTR
 - LACTLD
- Other Associations
 - Domain Name Association
 - Fairwinds Partners

Software/Service Producers and Vendors

- Microsoft and Apple
 - Software developer conferences
- Google
- Mozilla

- Open source
- Web-mail, web hosting
- Social media

Written Script and Language Communities

- TF-AIDN, Task Force on Arabic Script IDNs
- Seeking other languages/scripts



High-level Roadmap

What Needs to Be Done

- Define scope - *dynamic*
- Identify and recruit
- Create a sense of urgency
 - As important as IPv6 and DNSSEC
- Enabling sector: Registration
- Rest of the Internet

Registration

- This may seem like “oh, we got this” but
 - Registrars aren’t always up to date on the TLDs they sell and manage
 - Sometimes registrar/hosters have only portions up and running for new TLDs
 - Even registries have to examine themselves
 - Can I use an internationalized email address for billing?
 - Or in a membership/community mail list?

Roadmap Story

- Global alliance/...
 - An organized critical mass to push this forward
 - Not *needing* to be a formal task force/WG/SIG
- Steering of priorities, focus, energy
 - Encourage progress but eliminate bottlenecks
- Milestones and possibly measures
 - To motivate at all turns

Universal Acceptance Initiative URLs

- Two ICANN resources
- A description of the TLD Universal Acceptance Initiative
 - <http://www.icann.org/en/resources/tld-acceptance>
- An ICANN community wiki
 - <https://community.icann.org/display/TUA/TLD+Universal+Acceptance+Home>

Social Media



<https://twitter.com/ICANN>



<http://gplus.to/icann>



<https://www.facebook.com/icannorg>



<http://weibo.com/icannorg>



<http://www.linkedin.com/company/icann>