

Addressing the issue of Universal Acceptance of IDN TLDs

While IDN ccTLDs and IDN TLDs work as expected within the DNS system, they don't work well within the real world. This could be why IDN TLDs are not being adopted as quickly as desired.

This paper looks at two issues: What are the barriers to the effective use of IDN TLDs and who can help address these issues.

What	Who
Web Addresses and links don't maintain their IDN display and sometimes don't resolve in browsers.	<p>Browser Developers</p> <ul style="list-style-type: none"> - Firefox from Mozilla - Chrome from Google - Safari from Apple - Internet Explorer from Microsoft - Opera
Emails either don't reach their destination or don't display addresses properly	<p>There are MANY different e-mail clients:</p> <ul style="list-style-type: none"> - Apple Mail - Outlook - Windows Mail - Windows Live - Thunderbird - Postbox <p>There are also web based mail clients:</p> <ul style="list-style-type: none"> - Gmail - Yahoo - Outlook.Com - AOL Mail - Mail.com <p>But, besides the clients, the intermediary mail exchanges need to be fully compliant.</p>
Search Engines need to make sure that they are indexing links fully and properly AND displaying them correctly.	<p>There are MANY different search Engines:</p> <ul style="list-style-type: none"> - Duck Go - Ask.com - Bing - Yahoo - Dogpile - Google - Maholo - Wolframalpha
Social Media. There are countless social media and other web 2.0 applications that need to be able to display IDN links AND accept IDN based e-mail addresses.	<ul style="list-style-type: none"> - Facebook - Twitter - PayPal - Foursquare - LinkedIn - Pinterest - Tumblr - Instagram - Flickr - Sina Weibo - Wordpress - Blogspot

Software Tools	By building appropriate libraries within web based software tools, new solution developers will have what they need when developing or enhancing code: <ul style="list-style-type: none">- C++- Java- Adobe- Macromedia
Hardware & Operating Systems: Smartphone and tablets, with their dynamic allocation of non-ascii characters, but be able to generate correct character sets and be used without any knowledge of latin characters.	<ul style="list-style-type: none">- Apple- Google- Nokia- Samsung

Once these areas are addressed, there are still issues to be addressed to answer the 'Why Bother' question:

These include:

1. Development of a chain of local advocates. The chain will flow from the IDN TLD through the registrars, resellers and solution developers.
2. Content is King. There must be content in the IDN languages that is of sufficient interest to a sufficient number of people that they want to access it and share the links with their friends.
3. Follow the leader. The story of early adopters must be regularly shared. Community leaders, including Government, community, religious, academic and commercial organisations need to be encouraged to be early adopters.
4. More and more access into more and more 'remote' communities must be pursued. Particular focus needs to be made to get non-Latin script readers engaged with the Internet. These will probably be people who are in more rural and remote communities.
5. Hardware and operating systems need to become language agnostic. Smart phones and tablets, where the character set keyboard can be allocated dynamically are an ideal platform.