What are IDNs?

Internationalised Domain Names (IDNs) are domain names that include characters from different scripts such as Arabic, Chinese, Cyrillic, or the Latin alphabet characters with diacritics, such as French. These non-ASCII characters can appear at the second or third levels of the domain name (e.g., www.monidééeàmoi.be) thanks to the 2008 Internationalizing Domain Names in Applications (IDNA2008) protocol, but the first non-ASCII top-level domains (TLDs) were only introduced to the root zone in 2010.

The first IDN TLDs were country code top-level domains (ccTLDs). In June 2010, the IDN ccTLDs (Egypt, Saudi Arabia and the United Arab Emirates), as well as .рф (Russia) were successfully implemented, closely followed by .中国 and .香港 (China), .香港 (Hong Kong), as well as .台灣 and .台湾 (Taiwan). To date, more than 38 IDN ccTLDs have been delegated worldwide and more than 1M IDNs below top-level have been registered in the European region.

Examples of IDN ccTLDs:

- кц.рф – cctld.ru
- домены.бел – cctld.by
- рнидс.срб – rnids.rs

What is Universal Acceptance?

Since 2010, the internet has had standards that allow people to use domain names and email addresses in their native scripts. Software developers need to bring their applications up-to-date so that consumers can use their chosen identity. A typical problem is that an IDN email address is not recognised by a website form as a valid email address.

The importance of adopting IDNs

- Enable citizens to use their own identity online (correct spelling, native language)
- Relates to language, culture and content
- Promotes local and regional content
- Allows businesses and politicians to better target their messages

How the DNS community is contributing to the adoption of IDN TLDs

- DENIC’s (.de) source code donation to the Mozilla foundation to support IDNA2008 in Firefox and Thunderbird
- The IDN World Report, by EURid (.eu), Verisign (.com) and UNESCO
- November 2017 ICANN Board resolutions supporting conformance to IDNA2008, based on a report from ICANN’s Security and Stability Advisory Committee (SSAC)

ccTLDs that support IDNs under top-level

- Supported
- Not supported
- Preparing