What is the Domain Name System (DNS)?

One of the main functions of the DNS, which is a distributed system, is to help people find Internet addresses.

Every computer on the Internet has a unique number - like a postal address - called its IP address. IP stands for Internet Protocol.

IP addresses can be difficult to remember. Instead of numbers, the DNS uses letters, numbers and hyphens to form a name that is easier to remember.

What are Internationalized Domain Names?

An Internationalized Domain Name (IDN) uses a particular encoding and format to allow a wider range of scripts to represent domain names. Until late 2009**, Top-Level Domains were restricted to only the Latin letters a to z without accents or symbols. After 2009, IDN TLDs were introduced in other scripts including Arabic, Chinese and Cyrillic scripts.

IDN TLDs can be either ccTLDs or gTLDs.

Internationalized Domain Names

Domain names with non-Latin characters or Latin characters beyond letters (a to z) digits (0 to 9) and hyphen (-), as allowed by relevant protocols.

Why Internationalize Domain Names?

More and more people around the world, once unconnected, are online.

Number of Internet Users Worldwide***

<table>
<thead>
<tr>
<th>Year</th>
<th>Users</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>413M</td>
</tr>
<tr>
<td>2014</td>
<td>2.9B</td>
</tr>
<tr>
<td>2020</td>
<td>5B expected</td>
</tr>
</tbody>
</table>

Internationalized Domain Names allow people around the world to access domain names in their local languages.

What has changed with Top-Level Domains?

Top-Level Domains (TLDs) are the last part of the domain name. You can think of TLDs in two categories:

- **Country Code Top-Level Domains (ccTLDs)**: A two letter TLD* used or reserved for a country, a sovereign state or a dependent territory based on abbreviations defined by the International Organization for Standardization (ISO).

- **Generic Top-Level Domains (gTLDs)**: A TLD longer than two letters that does not correspond to a country code; for example, .com, .org or .net.

The Timeline of ICANN’s Progress on IDN TLDs

- 2007: ICANN introduces .test IDN TLDs in multiple scripts in the root zone.
- 2010: ICANN initiates the development of Label Generation Ruleset (LGR) for the root zone. The LGR is a mechanism for creating and maintaining rules to determine valid IDN labels and their variants, if any, in different scripts.
- 2013: 35 IDN country code Top-Level Domains created in the root zone through the Fast Track Program.
- 2014: ICANN initiates and encourages the formation of community-based panels for different scripts for example: Arabic, Chinese and Cyrillic.

Speak Up For Your Language

A fully internationalized Domain Name System is within reach but we need the collaboration of the global Internet community – technical and linguistic experts, policy-makers, application developers, end users and other stakeholders.

We need your help to determine how to include your language script in Top-Level Domains.

### Top Three Countries by % of Total Global Internet Users***

<table>
<thead>
<tr>
<th>Year</th>
<th>U.S.</th>
<th>Japan</th>
<th>Germany</th>
<th>China</th>
<th>India</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>30%</td>
<td>9%</td>
<td>6%</td>
<td>22%</td>
<td>10%</td>
</tr>
<tr>
<td>2014</td>
<td>22%</td>
<td>10%</td>
<td>8%</td>
<td>22%</td>
<td>8%</td>
</tr>
</tbody>
</table>

Volunteer for your language by emailing: idntlds@icann.org

Find out more information by visiting: icann.org/topics/idn

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facebook.com/icannorg

*Note: IDN TLDs may have two or more characters.
**Note: Experimental .test IDN TLDs were introduced in 2007.
***Source: Internet Live Stats (www.InternetLiveStats.com).
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One World, One Internet