

Internationalized Domain Names

Case from Bhutan

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Presentation Outline

- Overview
- Process
- Testing
- Issues



Overview

- Deployment of local content on the internet is now possible
- But knowledge of Latin script is still needed to access them
- This is because Domain Name System (DNS) still uses English Conventions and Abbreviation.

Overview

- Domain name consists of labels separated by a label separator
 - In the present DNS system, Labels consists of:
 - Standard parts like www
 - gTLDs like com, net, org
 - ccTLDs uk, bt, pk
 - Label separator: dot (.)
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Overview

- Internationalized Domain Name in Application
- Solution for enabling IDNS for Local languages
- IDNA adds a layer between the DNS and the client at the application end.
- for eg, as a plugin in web browsers.



Process

- Selection of characters to be included in IDN
- Selection of “www” representation
- Selection of label separator
- Representation gTDLs and ccTLDS in Dzongkha

Process

- Selection of characters to be included in IDN
 - Dzongkha uses same character set as Tibetan
 - Frequently used characters (all consonants, vowels and digits) considered as valid IDN input
 - Complicated characters normally not used for plain text Dzongkha are excluded
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Process

- Selection of “www” representation
 - Translating or transliterating “www” into Dzongkha makes is too long and improper
 - “ཨཱཱཱཱ” to be used for representing “www”

Process

- Selection of label separator
 - Should consider Tibetan IDN, since choosing a different label separator might disallow it for the Tibetan IDN
 - Should be easy to type in without including any ALT/SHIFT characters
 - Should provide clear distinction in its responsibility
 - Character 0F14 (Gter Tshég) “ཨ” selected as label separator
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Process

- Representation gTDLs and ccTLDS in Dzongkha
 - gTDLs are translated in Dzongkha to reflect the meaning. Ex; com translated as “ཚོང་”
 - ccTLDS are just transliterated into Dzongkha

Testing

- Tested in local LAN
- Setup: test DNS server and a web server
- Registered a test domain in DNS, pointing to the web server
- Used browser plug-in in the client side to convert Dzongkha domain name into Puny code

Issues

- Important to keep in mind the Tibetan IDN while preparing valid input for Dzongkha IDN
 - Normally, punctuations are not included as valid input for labels, but the Dzongkha character *Tsheg* has to be considered valid since it is the syllable separator and Dzongkha words cannot be formed without it
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Any Questions?

