

Definition of ccTLD changing?

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Purpose of this presentation

- to share the status of IDN ccTLD introduction
- to share the typical non-technical issues from the viewpoint of ICANN or APTLD when IDN ccTLDs are introduced
- to hear your questions, ideas, experiences, concerns, etc.

Background information

IDN ccTLDs are emerging (1)

as of August 19, 2010

ccTLD (ASCII)	Country/Territory	Primary String	Language	Script	Sponsor	Sponsor (ASCII)
○ AE	United Arab Emirates	xn--mgbam7a8h امارات	Arabic	Arabic	=	TRA
○ CN	China	xn--fiqs8S 中国 xn--fiqz9S 中國	Chinese	Simplified Chinese, Traditional Chinese	=	CNNIC
EG	Egypt	xn--wgbh1c مصر	Arabic	Arabic	NTRA	EUN
○ HK	Hong Kong	xn--j6w193g 香港	Chinese	Han	=	HKIRC
○ JO	Jordan	xn--mgbayh7gpa الاردن	Arabic	Arabic	=	NITC

↑
in AP region (according to ICANN region definition)

= : same as ASCII Sponsor

IDN ccTLDs are emerging (2)

as of August 19, 2010

ccTLD (ASCII)	Country/Territory	Primary String	Language	Script	Sponsor	Sponsor (ASCII)
LK	Sri Lanka	xn--fzc2c9e2c ලංකා xn--xkc2al3hye2a இலங்கை	Sinhalese Tamil	Sinhala Tamil	=	LK Domain Registry
PS	Palestinian Territory, Occupied	xn--ygbi2ammx فلسطين	Arabic	Arabic	=	MTIT
QA	Qatar	xn--wgb16a قطر	Arabic	Arabic	not yet delegated	Q-Tel Q.S.C.
RU	Russian Federation	xn--p1ai рф	Russian	Cyrillic	=	Coordination Center for TLD RU
SA	Saudi Arabia	xn--mgberp4a5d4ar السعودية	Arabic	Arabic	=	CITC

↑
in AP region (according to ICANN region definition)

= : same as ASCII Sponsor

IDN ccTLDs are emerging (3)

as of August 19, 2010

ccTLD (ASCII)	Country/Territory	Primary String	Language	Script	Sponsor	Sponsor (ASCII)
○ SG	Singapore	xn--yfro4i67o 新加坡 xn--clchc0ea0b2g2a9gcd சிங்கப்பூர்	Chinese Tamil	Han Tamil	not yet delegated	SGNIC
○ SY	Syrian Arab Republic	xn--ogbpf8fl سورية	Arabic	Arabic	not yet delegated	STE
○ TW	Taiwan	xn--kpry57d 台灣 xn--kprw13d 台湾	Chinese	Simplified Chinese, Traditional Chinese	=	TWNIC
○ TH	Thailand	xn--o3cw4h ไทย	Thai	Thai	=	THNIC
TN	Tunisia	xn--pgbs0dh تونس	Arabic	Arabic	=	ATI

↑
in AP region (according to ICANN region definition)

= : same as ASCII Sponsor

IDN ccTLDs from AP region

- Many languages / scripts in AP region
- Some outstanding characteristics of IDN ccTLDs delegated so far
 - more than one IDN ccTLDs per ASCII ccTLD
 - more than one official languages in a country/territory
 - more than one IDN ccTLD are 'synchronized' (*)
 - .中国 and .中國
 - .台灣 and .台湾
 - all the sponsors are the same as ASCII ccTLD sponsors, with one exception

(*) synchronized IDN ccTLDs :

Synchronized IDN ccTLDs are resolved to the same address.

For example, they are directed to the same home page.

Definition of ccTLD - according to RFC1591

- RFC 1591 (Domain Name System Structure and Delegation) by J. Postel
 - 2. The Top Level Structure of the Domain Names
 - In the Domain Name System (DNS) naming of computers there is a hierarchy of names. The root of system is unnamed. There are a set of what are called "top-level domain names" (TLDs). These are the generic TLDs (EDU, COM, NET, ORG, GOV, MIL, and INT), and the **two letter country codes from ISO-3166**. It is extremely unlikely that any other TLDs will be created.
 - 4. Rights to Names
 - **The selection of the ISO 3166 list as a basis for country code top-level domain names was made** with the knowledge that ISO has a procedure for determining which entities should be and should not be on that list.

Definition of IDN - according to RFC5890

- RFC 5890 (Internationalized Domain Names for Applications (IDNA): Definitions and Document Framework) by J. Klensin
 - 2.3.2.1. IDNA-valid strings, A-label, and U-label
 - A string is "IDNA-valid" if it meets all of the requirements of these specifications for an IDNA label.
 - An "A-label" is the ASCII-Compatible Encoding (ACE, see Section 2.3.2.5) form of an IDNA-valid string.
 - A "U-label" is an IDNA-valid string of Unicode characters, in Normalization Form C (NFC) and **including at least one non-ASCII character**, expressed in a standard Unicode Encoding Form (such as UTF-8).
 - 2.3.2.3. Internationalized Domain Name and Internationalized Label
 - **An "internationalized domain name" (IDN) is a domain name that contains at least one A-label or U-label, ...**

IDN ccTLD is a ccTLD (strong assumption)

- Final Implementation Plan for IDN ccTLD Fast Track Process by ICANN - 16 November 2009
 - 2.1 ISO 3166-1 Representation
 - To be eligible to enter the IDN ccTLD Fast Track Process, the country or territory must be **listed in the International Standard ISO 3166-1**
 - ... the **standard ICANN IANA process for delegations is followed, as already exists for ASCII country-code top-level domains**. The ICANN Board approves the delegation.
 - 3.2 Language and Script Criteria
 - The conditions for **allowable languages and scripts** to be used for the requested TLD string are as follows:
 - The language must be **an official language** in the corresponding country or territory, and have legal status in the country or territory, or serve as a language of administration.

Issues to be solved

(A) Is ASCII country/territory name a ccTLD?

- Conditions for a string to be an IDN ccTLD

1. consists of characters with at least one non-ASCII character
2. is expressed in official (or having legal status) language
3. is expressed in a script used for the language
4. is a meaningful representation of the country/territory name corresponding to the ISO 3166-1 alpha-2 code

- Discussion

- 1. is strictly related to being IDN
- 2,3,4 are not strictly related to being IDN - related to being ccTLD
- Then, ... what if the country is Australia and the string is .australia
 - 1 is not satisfied -- so, .australia is not an IDN ccTLD
 - 2,3,4 are satisfied -- so, .australia is a ccTLD
- Then, why not ".australia can be a ccTLD"

not relevant to WG2

(B) Are ccTLDs for a country/territory regarded as separate?

- cases
 1. one sponsor - multiple ccTLDs
.sg .新加坡 .சிங்கப்பூர்
 2. one sponsor - multiple ccTLDs with synchronization
.cn .中国 .中國
 3. two sponsor - two ccTLDs
.eg . مصر
- Discussion
 - per country/territory
 - single ccTLD with multiple representation or multiple ccTLDs?
 - If ISO-3166 is the sole basis for cc definition, ASCII ccTLD should be the representative and IDN ccTLDs are regarded as subspecies. ???
 - synchronized TLDs
 - representing one TLD or multiple TLDs
 - what if sponsoring organizations are different
 - does this affect answers to the questions above?

(C) What are the ccNSO/APTLD membership criteria?

- Background

- cases
 1. one sponsor - multiple ccTLDs
.sg .新加坡 .சிங்கப்பூர்
 2. one sponsor - multiple ccTLDs with synchronization
.cn .中国 .中國
 3. two sponsor - two ccTLDs
.eg .مصر

- Discussion

- How many members / how many voting rights?
 - one per country/territory
 - who represents the country/territory is decided among ccTLDs in the country/territory
 - 1/N voting rights for each of the N ccTLDs in the country/territory
 - one per sponsoring organization
 - one per ccTLD string after combining synchronized TLDs into one
 - one per ccTLD string