

RFC3743 and IDN TLD tests

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What is RFC 3743?

- RFC3743 JET Guidelines for IDN Registration and Administration for Chinese, Japanese, and Korean
- Chinese Japanese and Korean characters have variants for the same conceptual character
- It means: One conceptual character can be identified with several different Code Points in character sets for computer use.
- The principle of RFC3743 is to assign a bundle of names with character variants to the same registrant.



CJK character variants issues

- characters with different code points to have the same meaning – example: the term "International"
- Chinese
 - · Simplified Chinese: 国际 (56FD 9645)
 - · Traditional Chinese: 國際 (570B 969B)
 - Other variants combination: 国际(56EF 9645)
- Japanese
 - Modern Japanese: 国際
- Other Possible Combination:
 - 國际



or example

- Simplified-Chinese (SC) and Traditional-Chinese (TC) characters equivalence for example in English, 'A'='a'; 'B'='b' Similarly in Chinese, '国'='國'; '华'='華'
- Chinese character variants, some Chinese characters has many variants but they are same in meaning

for example {国,國,囯,圀}



Why RFC 3743?

- http://www.icann.org/topics/idn/rfcs.htm
- BANK.cn equals bank.cn?
 Upper case BANK equals lower case bank
- 银行.cn equals 銀行.cn?
 Simplified Chinese characters 银行 equals Traditional Chinese characters 銀行



CNNIC policy for registration of CDN

Each registrant registering Chinese Domain Name will be assigned the three domain names: (1) One original domain name (2) One traditional domain name for free (3) One simplified domain name for free for example

清 - >{清,清,清}

华 - >{华, 華, 崋}

学 - >{学, 學, 斈}

Input Original Form:清華大学.cn

Free TC-only Form:清華大學.cn

Free SC-only Form:清华大学.cn



CNNIC policy for registration of CDN (cont.)

■ A registrant registering '清華大学.cn' in CNNIC will have:

CDN package with a bundle of names:

```
{ 清華大学.cn;清華大學.cn;清华大学.cn;
清华大学.cn;清华大學.cn;清華大學.cn;
清华大學.cn;清華大学.cn;...}
```

CDN used in DNS resolution

Input Original Form:清華大学.cn Free TC-only Form:清華大學.cn Free SC-only Form:清华大学.cn

Other CDNs which will not be used in DNS resolution and be reserved only for this registrant

```
{ 清华大学.cn;清华大學.cn;清華大學.cn;
清华大學.cn;清華大学.cn;...}
```

 It protects the interests of the registrants of CDN and eliminate the possible "phising" problems



'例子.测试'='例子.測試'?

For Chinese, Simplified Chinese characters 银行 equals Traditional Chinese characters 銀行 and their meaning is same although their scripts are different

If Simplified Chinese 银行.cn and Traditional Chinese銀行.cn does not belong to the same registrant, there will be a possible 'phising' problem

银行.cn xn--jn2A72X.cn 192.168.1.1 銀行.cn xn--jn2Ax2s.cn

192.168.254.254

Luckily, we have RFC3743

■ 例子.测试 equals 例子.測試

测 - > {测 測}

试 - > {试 試}

测试= 測試

example.test



a new 'phising' opportunity?

- 'bank.测试' = 'bank.測試'?
- The principle of RFC 3743 is to protect the interests of the registrant.
- If 'bank.测试' ≠'bank.测試' and 'bank.测试' and 'bank.测試' belong to the different registrants, a new 'phising' opportunity?



A suggestion to IDN TLD test

- Simple Chinese 例子.测试 and traditional chinese例子.測試 for 'example.test' in the IDN wiki should link to the same webpage on which there are 2 versions, Simple Chinese 例子.测试 version and traditional chinese 例子.測試 version
- If that happens, it told users that 例子.测试 equals 例子.測試 and it eliminates the possible 'phising' problem



Internationalized Email Address

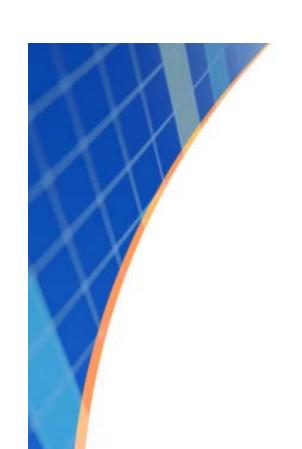
■ 中文.cn

■ 姚健康@中国互联网络信息中心.cn



IETF EAI WG progress

- Overview and Framework for Internationalized Email (RFC4952 July 2007)
- SMTP extension for internationalized email address (Finish WG Last Call)
- Internationalized Email Headers (Finish WG Last Call)
- International Delivery and
 Disposition Notifications (Finish
 WG Last Call)



Q&A

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