

# **IDN.IDN risks: existing implementations on IDN.IDN**

**Andrzej Bartosiewicz  
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# Types of IDN.IDN implementations

- Existing ccTLD Registry is offering IDN.IDN domain names
- Third party (not ccTLD) is offering IDN.IDN ccTLD domain names
- gTLD IDN.IDN is offered as "local" implementation of .com/.net/.org/.info

# IDN-ccTLD (1)

- Existing ccTLD Registry is offering IDN.IDN domain names (examples: China, some Arab States)
- When ICANN implements IDN at the root level, all ccTLDs already offering IDN.IDN will be automatically supported ☺
- Facilitating role, no harm to DNS,
- Win-win situation.

# IDN-ccTLD (2)

- Third party (not existing ccTLD manager) is offering IDN.IDN ccTLD domain names,
- When ICANN implements IDN at the root level, no clear situation who is IDN-ccTLD Manager,
- Who lose? Internet users.

# IDN-gTLD

- Third party (not VeriSign, Afilias, NeuStar...) is offering IDN.IDN gTLD domain names
- Examples: .com/.net/.org version in:
  - Cyrillic script (Regtime.net)
  - Korean script (Digital Names)
  - Hebrew script (Domain The Net)
- When ICANN implements IDN at the root level, the problem WHO is the authority over IDN-gTLD arises?

.КОМ .НЕТ .ОРГ

.기관 .통신

.אָרֶגְנַט. מִקּוֹם.

# How is it possible?

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- Currently ICANN is not offering IDNs at the root level,
- All existing IDN.IDN solutions are not DNS standard compatible,
- Two possible solutions: “patching” DNS at the ISP level or client “plug-in” solutions

# ISP level...

- All the existing IDN.IDN implementations are based on modifications to domain names resolution process at the ISP (Internet Service Provider) level.
- Alternative root servers are established; ISP queries alternative root servers
- Resolution depends on ISP... When Internet user moves from country to country, gets different responses to identical queries
- Such approach makes DNS resolution not authoritative (not in “golden tree”) and may create many problems (DNS not authoritative, IDN.IDN useless if not connected to particular ISPs, resolution depending on ISP) to the Internet users.

# ISP level...

- The key role of Internet Service Providers,
- More than 100 ISPs supporting IDN.IDN like Hanaro, Thrunet, Tiscali...
- Statistics:
  - ca.115 000 000 users including:
    - China 80 000 000
    - Korea 20 000 000
  - >20 000 IDN.IDN registrations

# Links... (1)

- Could the Internet Fragment?  
<http://www.spectrum.ieee.org/jun06/3675>
- ITU and UNESCO Global Symposium on Promoting the Multilingual Internet  
<http://www.itu.int/ITU-T/worksem/multilingual/>
- Coordination on Multilingualism Necessary to Avoid Net Fragmentation  
<http://www.itu.int/ITU-T/newslog/Coordination+On+M>

# Links... (2)

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- Korean Language Internet Names: Koan Cho (Digital Names)  
<http://www.itu.int/ITU-T/worksem/multilingual/>
- Hebrew Internationalized Top Level Domain Names – It's Time: Yoav Keren (Domain The Net)  
<http://www.itu.int/ITU-T/worksem/multilingual/>



Thank you!

more...

[Andrzej.Bartosiewicz@NASK.pl](mailto:Andrzej.Bartosiewicz@NASK.pl)

[www.bartosiewicz.eu](http://www.bartosiewicz.eu)