

TLD Mapping and Standardization for Arabic Domain Names

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Ripe Middle East ,8th Dec 2003



i-DNS.net

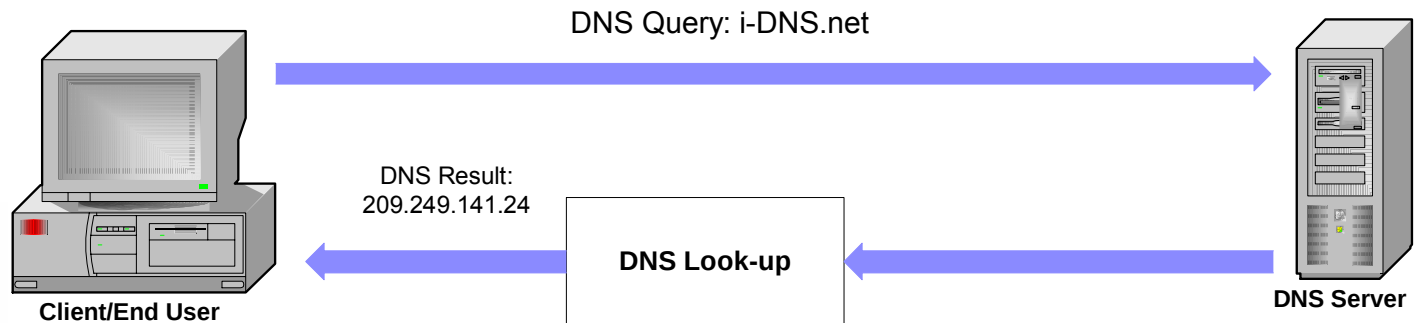
International

Outline

- **The Domain Name System**
- **How IDN Works**
- **Technical and linguistic standards**
- **Arabic domain Naming Evolution**
- **Arabic Domain Naming Business**
- **RFCs for Arabic Domain Naming**
- **TLD Discussions**
- **TLD Mapping Proposal**
- **Benefits of TLD Mapping.**
- **Conclusion**

The Domain Name System

- ❑ Strings of IP numbers are hard to remember
- ❑ Domain names facilitate easy recall for access to websites



<http://www.i-DNS.net> = <http://209.249.141.24>

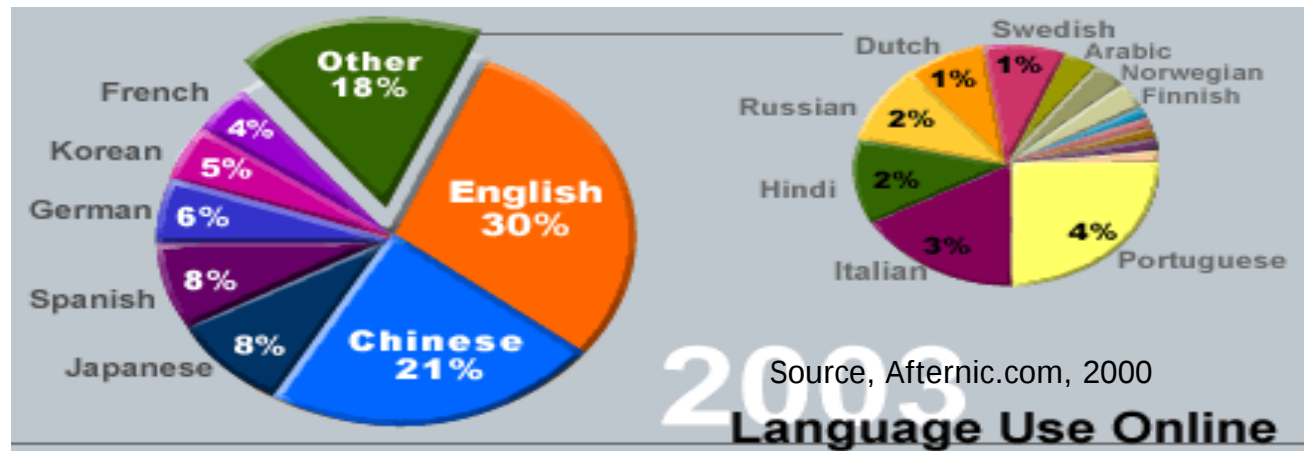
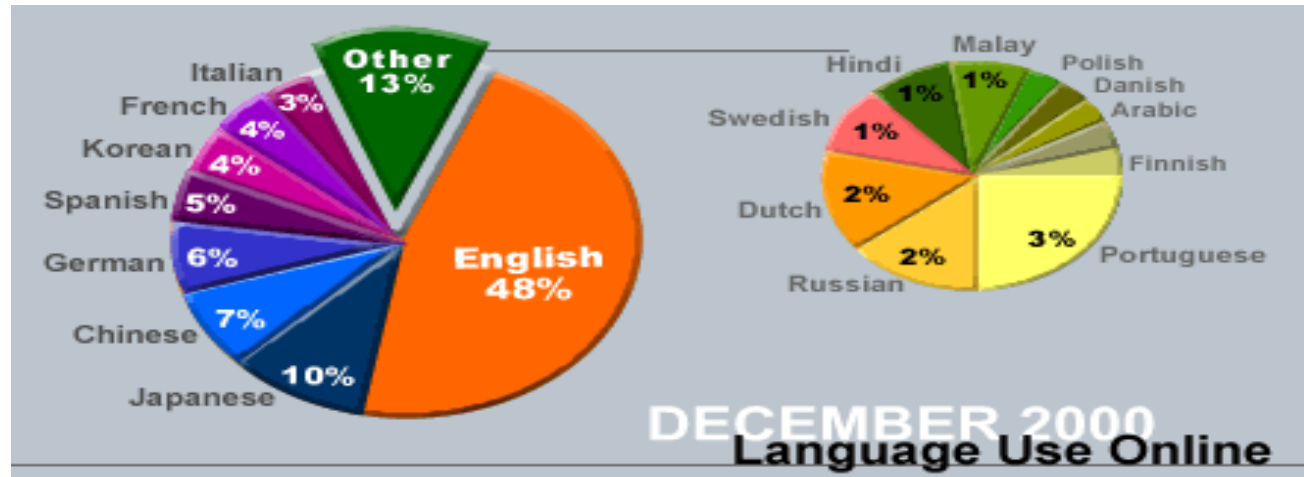
- ❑ End user enters www.i-DNS.net
- ❑ Server matches that with its corresponding IP address
- ❑ End user is brought to the requested website



What Are Domain Names Used For Nowadays?

- Website & Portal: <http://www.yahoo.com>
- Email Address: hassan@gcc.org
- FTP: <ftp.zdnet.com>
- Other TCP/IP protocols such as Telnet, and Gopher etc.
- Essential Digital Branding in the Internet Economy
- Commercial Value of Domain Names

Emerging Trend towards a Multilingual Internet



Source, Afternic.com, 2000

❑ **Solution Required: Internationalized Domain Names**



Problems with the current DNS

- Only allows a limited set of 38 alphanumeric characters
 - A to Z, 0-9, the hyphen and the dot
- Have to be in English even though:
 - There are many languages in the world; and
 - People from all over the world use the Internet

What are Internationalized Domain Names (IDN)?

IDN refers to Domain Names which contain characters beyond the characters found on a standard *ENGLISH* keyboard, i.e. characters beyond “A-Z”, “0-9”, “-” and “.”

Address  [http:// 简体中文. 雅虎. 公司](http://简体中文.雅虎.公司)

<http://مقر.انترنتمصر.شر>  عنوان

ress  [http:// தமிழ்சினிமா. வணி](http://தமிழ்சினிமா.வணி)

ress  <http://www.viagénie.qc.ca/>

Location: [http:// ヤフー. 会社](http://ヤフー.会社)

Location: [http:// 삼성. 회사](http://삼성.회사)

Location: [http:// ทีเอชนิค.พาณิชย์. ไทย](http://ทีเอชนิค.พาณิชย์.ไทย)

The logo for i-DNS.net International is located in the top-left corner. It features a blue circle with a yellow dot inside, resembling a stylized 'i' or a globe. Below this graphic, the text 'i-DNS.net' is written in a sans-serif font, and 'International' is written in a smaller font below it.

Benefits of IDN

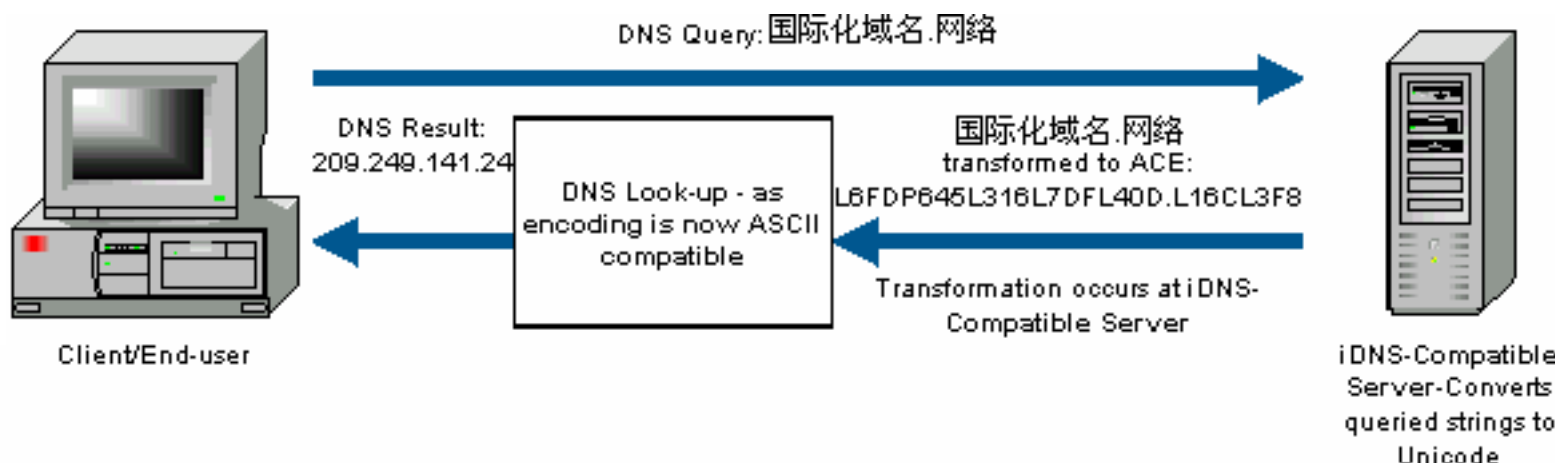
- **A more intuitive Internet experience.**
- **Gives people the freedom of choice**
- **Preserves cultural and linguistic integrity**
- **Empowers non-native English users to come online and tap the power of the Internet.**
- **Creates new opportunities for enterprises to establish their own identity online.**
- **Entrenches a company's web identity and web presence**
- **Creates an affinity with the non-English speaking business market by speaking their language.**
- **Opens up new business markets**

How IDN works

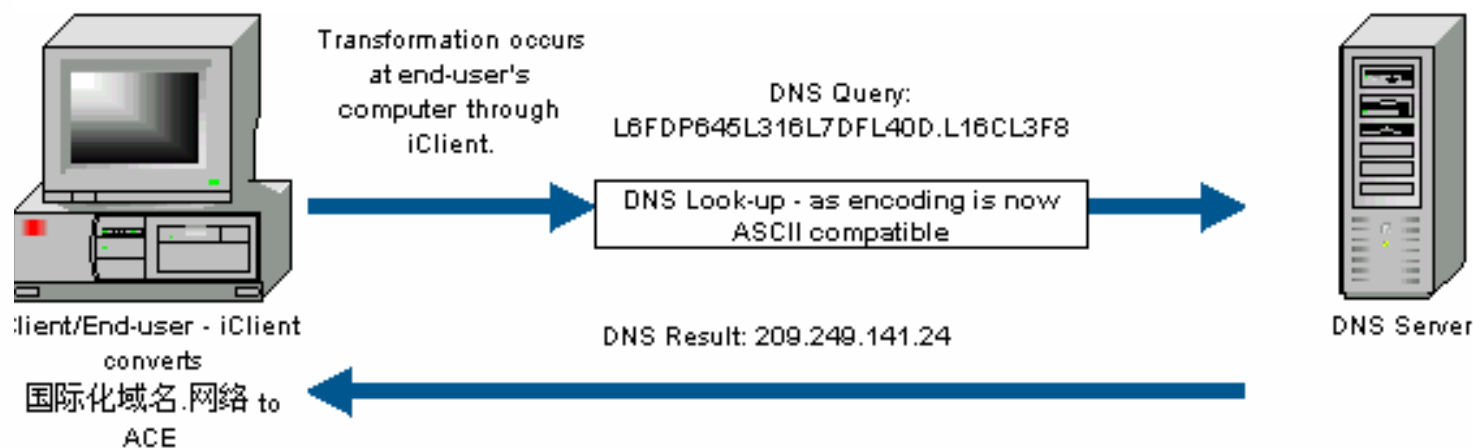
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Server-side Solution



Client-side Solution



How IDN Looks

i-DNS.net

International

http://www.ahram.org.eg - Microsoft Internet Explorer

File Edit View Favorites Tools Help

Back Forward Stop Home Search Favorites History

Address http://الاهرام.م/ Go Links

الأهرام
تأسس ٢٩ ديسمبر ١٩٥٤
أصدر العدد الأول في ٥ أغسطس ١٩٥٦ - طبع ومطابع 380
رئيس مجلس الإدارة ورئيس التحرير
إبراهيم نافع

الأثنين 18 من صفر 1421 هـ 22 مايو 2000 السنة 124- العدد 41440

إذا لم يظهر النص العربي

**مبارك ومحمد السادس يرأسان اليوم
اجتماعات اللجنة العليا بين مصر والمغرب
مباحثات الزعيمين تتناول تطورات السلام
ومتابعة نتائج القمة الإفريقية - الأوروبية**

يصل إلى القاهرة اليوم العاهل المغربي الملك محمد السادس، في أول زيارة من نوعها يقوم بها للدولة عربية منذ توليه مقاليد الحكم في المغرب في يوليو الماضي. وسيكون الرئيس حسني مبارك في مقدمة مستقبلي الملك محمد السادس، حيث يعقد الزعيمان العربيان علي الفور جلسة مباحثات تتناول تطورات السلام في الشرق الأوسط، ومتابعة نتائج القمة الإفريقية - الأوروبية، التي عقدت في القاهرة في أبريل الماضي، بالإضافة إلى عدد من القضايا العربية والإفريقية والإسلامية الراهنة

**في رسالة إلى مبارك من أفورقي:
إريتريا تطلب مساعدة مصر في تسوية النزاع مع إثيوبيا**

طلب الرئيس الإريتري أسباسي أفورقي من الرئيس حسني مبارك أن تبذل مصر جهودها لتسوية النزاع المتفجر حالياً بين بلاده وبين إثيوبيا، وجاء هذا الطلب في رسالة خطية من

US MIRROR SITE

البريد الإلكتروني
الكاريكاتير
القنوات الفضائية

موافيت الصلاة
المحدث
الأرشيف

Internet



Standardization for Arabic Naming

- **Technical standards issued by IETF and recommended by ICANN march 2003**
- **Linguistic standards issued by MINC and UN ESCWA In Nov 2003**
- **MINC RFC on TLD mapping , NOV 2003**



RFCs for Arabic Naming

- UNITED NATIONS ESCWA recommends the use deployment of Arabic domain names Particularly ccTLDs
 - TLD Mapping
 - No folding
 - .Arabi .Dawli TLDs
 - ccTLDs should launch immediately
 - gtlds to be run by a company or companies under the supervision of a selected body , ESCWA/UN/MINC

Arabic Naming Business

- The market for Arabic domain names is huge.
- The number of Arabic domain names is 10% of the number
Arabic internet users , currently 5million in the middle east and
3 million in other parts of the world. Thus it is 800,000 names
- The market for Arabic email addresses is around 8 million
currently based on the number of existing email boxes.
- the total current market size for this business can be around 100
Million USD.
- 5% penetration of the market by end 2004 means 5 M \$



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TLD Mapping

- **There have been a lot of discussions regarding the best choice for Arabic TLDs based on criteria such as the length, clarity of meaning, and future expansion of more Arabic TLDs and so on.**

TLD Mapping

- **Mapping : people can type the short code while the full length word is used in advertising and in branding .**

شركة-أرامكو.سع

شركة-أرامكو.سعودية

ccTLDs in Arabic

Country Official Names	Country Code		Short Name without (ال)
	English	Arabic	
Hashemite Kingdom of Jordan	Jo	ار	أردن
United Arab Emirates	Ae	ام	إمارات
Kingdom of Bahrain	Bh	بح	بحرين
Republic of Tunisia	tn	تو	تونس
People's Democratic Republic of Algeria	Dz	جز	جزائر
Federal and Islamic Republic of Comoros	Km	قم	جزر القمر
Republic of Djibouti	dj	جي	جيبوتي
Kingdom of Saudi Arabia	sa	سع	سعودية
Democratic Republic of Sudan	sd	سد	سودان
Syria Arab Republic	sy	سر	سورية
Somalia Democratic Republic	so	صو	صومال
Republic of Iraq	iq	عر	عراق
Sultanate of Oman	om	عم	عمان
Palestine	ps	فل	فلسطين
State of Qatar	qa	قط	قطر
Stat of Kuwait	kw	كو	كويت
Lebanese Republic	lb	لب	لبنان
Socialist People's Libyan Arab Jamahiriya	ly	لي	ليبيا
Arab Republic of Egypt	eg	مص	مصر
Kingdom of Morocco	ma	مغ	مغرب
Islamic Republic of Mauritania	mr	مو	موريتانيا
Yemen Arab Republic	ye	يم	يمن

Benefits of TLD Mapping

- **Closes the debate on the last open issue regarding linguistic Standardization for Arabic Naming.**
- **Preserves meaning**
- **Facilitates typing thus makes internet use in Arabic easy.**
- **Easy straight forward Technical implementation at the client plug-in level or the root server level**

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Conclusion

With the standard in place, its time for the Arabic World to safely increase the rate of adoption of Arabic internet domain and email addresses which began in 2000 .

TLD Mapping closes the last point of debate regarding Arabic Naming and brings a good compromise between preserving the language and ease of typing.

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Acknowledgement

- Please email me at wael@i-DNS.net for questions and copies of the ADNS RFCs
- Many Thanks to S. Subbiah / Ayman El-Shirbiny for useful discussions.