



رسيل - Raseel

Arabic Emails

MENOG 10 @2012

Communication and Information Technology Commission (CITC)

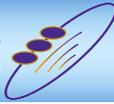
Presented by : Abdullah Alshammari





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Historical Background

- DNS does not support encoding other than ASCII
 - That means International domains are not allowed.
- New RFCs solved the problem by standardizing the solution.
- Saudi Arabia , was among the first countries that support IDN domain names.
 - SaudiNIC did that job well !

السعودية.



Historical Information

- New agreement between KACST and CITC opens the door to support solutions for Arabic Applications in the Internet.
- One of the first suggested Application was Arabic Emails.





International Emails

- Why do we need International Emails ?
 - Using international emails would be more natural for the people around the world
 - We don't have to force anybody to use English when using email service.
 - We already have IDN (International Domain Name)



IDN Applications*

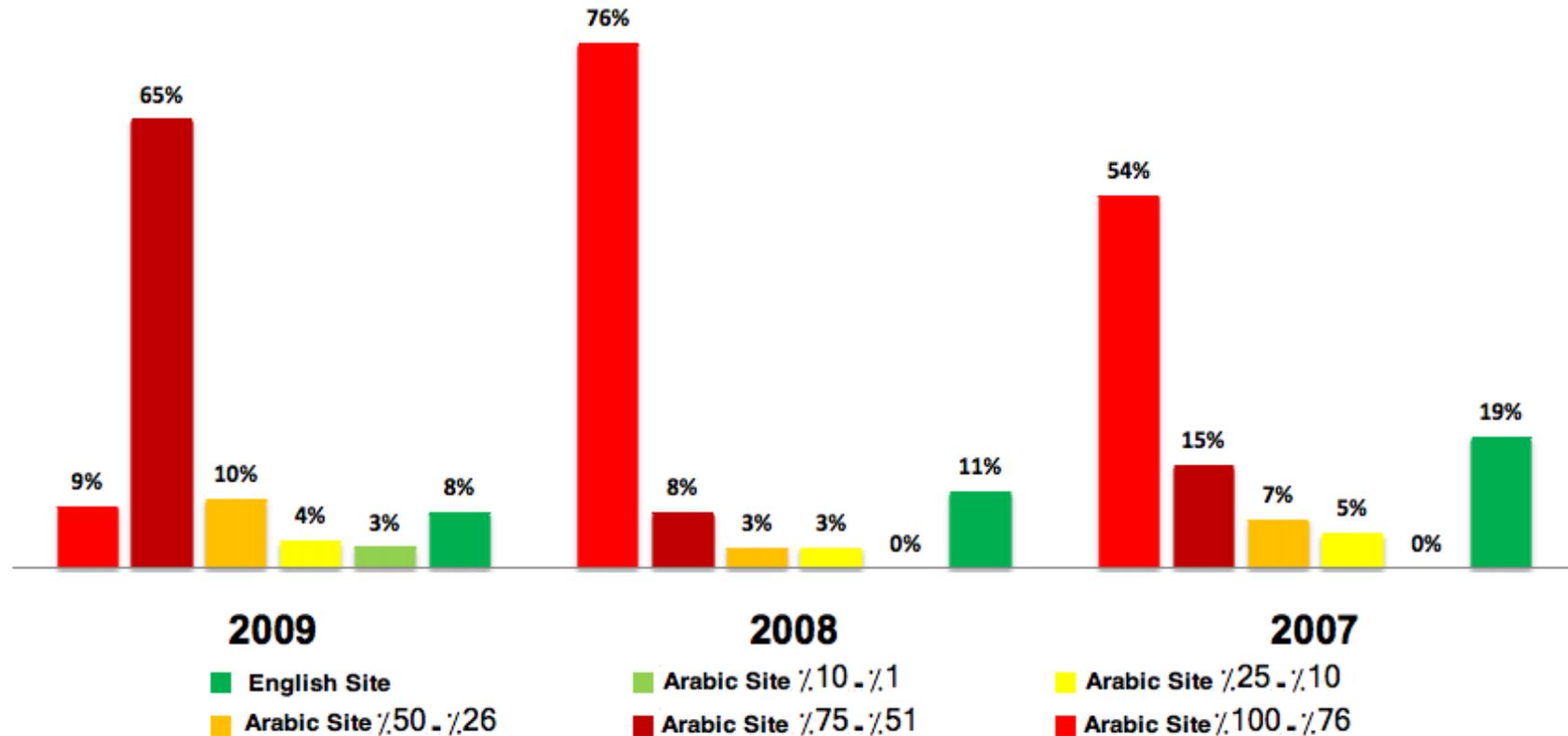
	2009	2008	2007
Browsing	%49	%47	%41
Communication	%27	%26	%30
Information	% 8	%10	%10
Education	% 4	%4	%5
Entertainment	% 5	%5	%4
Business	% 1	%3	%4
Downloading	% 3	%2	%3
Others	% 4	%3	%3

**80%
Email**

*source : CITC study <http://www.citc.gov.sa/>



In Saudi Arabic , Arabic sites more popular than other *



*source : CITC study <http://www.citc.gov.sa/>



Current Situation

- Email addresses use ASCII characters

username@example.com

- E-mail protocols based on ASCII
 - IMAP
 - POP3
 - SMTP



The Goal

Arabic: مثال@موقع.السعودية
Ukrainian: юзер@екзампл.ком
Greek: θσερ@εχαμπλε.ψομ



International Emails

- Any email address consists of
identity @ hostname . tld
- each part has to be Unicode to achieve our goal.
- IDN (Internationalized Domain Name) solved the half
of the problem.



Our Mission

- Supporting universal characters in identity par

مثال @موقع.السعودية

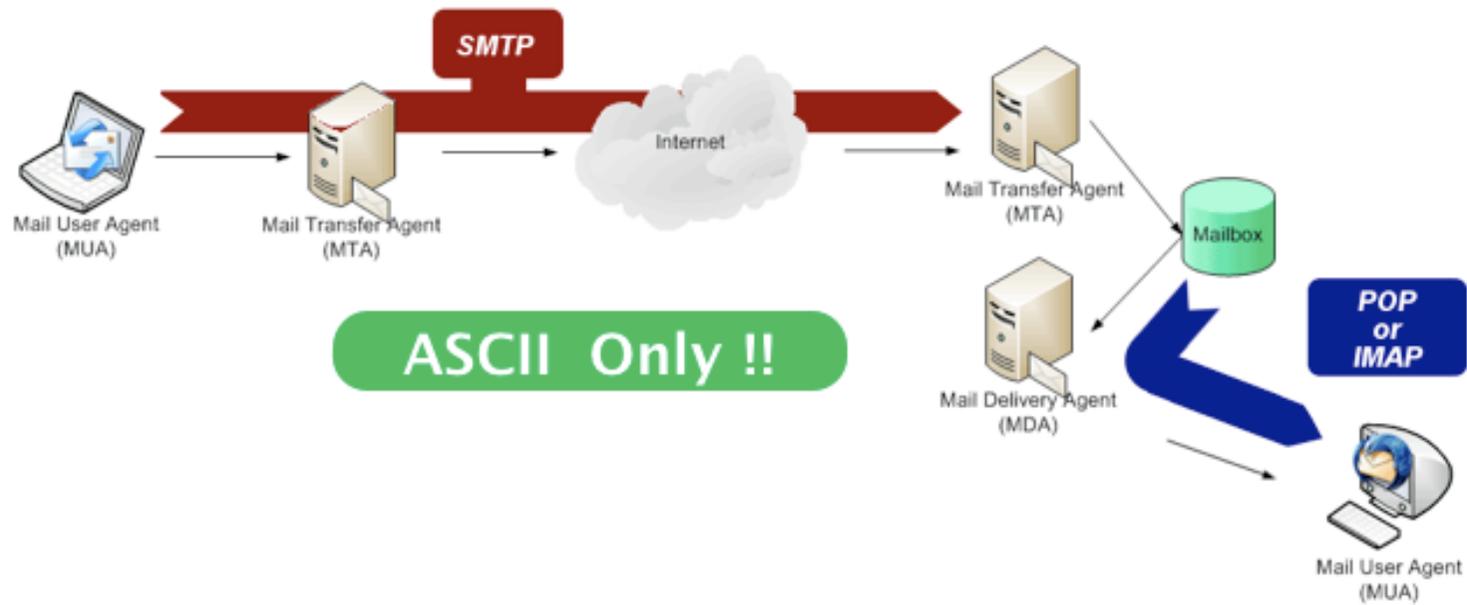


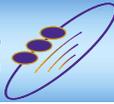
مثال @موقع.السعودية





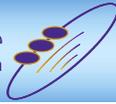
Current Situation





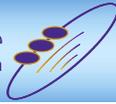
Current Situation

- In RFC2047 , MIME defines an encoding mechanism for some specific message header fields to accommodate non-ASCII data.
- It does not permit the use of email addresses that include non-ASCII characters.



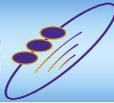
Suggested Solutions

- Using Unicode in all part of the email message format?
- Adding extra extensions to the current protocols to support universal characters in email.
- Using the same technique that was used with IDN (international domain name)



First Solution

- changing the emails headers to support Unicode in?
 - The presence of UTF-8 characters in email headers is not easy, since most, if not all, email servers, do not support that.



Second Solution

- adding extra extensions to :
 - IMAP
 - POP3
 - SMTP
- these extensions allow us to send and receive emails using email addresses written in any language.
- See:
Overview and Framework for Internationalized Email (RFC4952)



Third Solution

- Using Punycode to convert the local part of the email address from Unicode to ASCII.
- It's the same technique that used with IDN.



Raseel

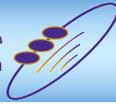
- Raseel (Arabic Emails) based on Punycode.

مثال @رسيل.السعودية

IETF Punycode
RFC 3492

xn--mgbh0fb@xn--wgbe5cxa.xn--mgberp4a5d4ar

ASCII

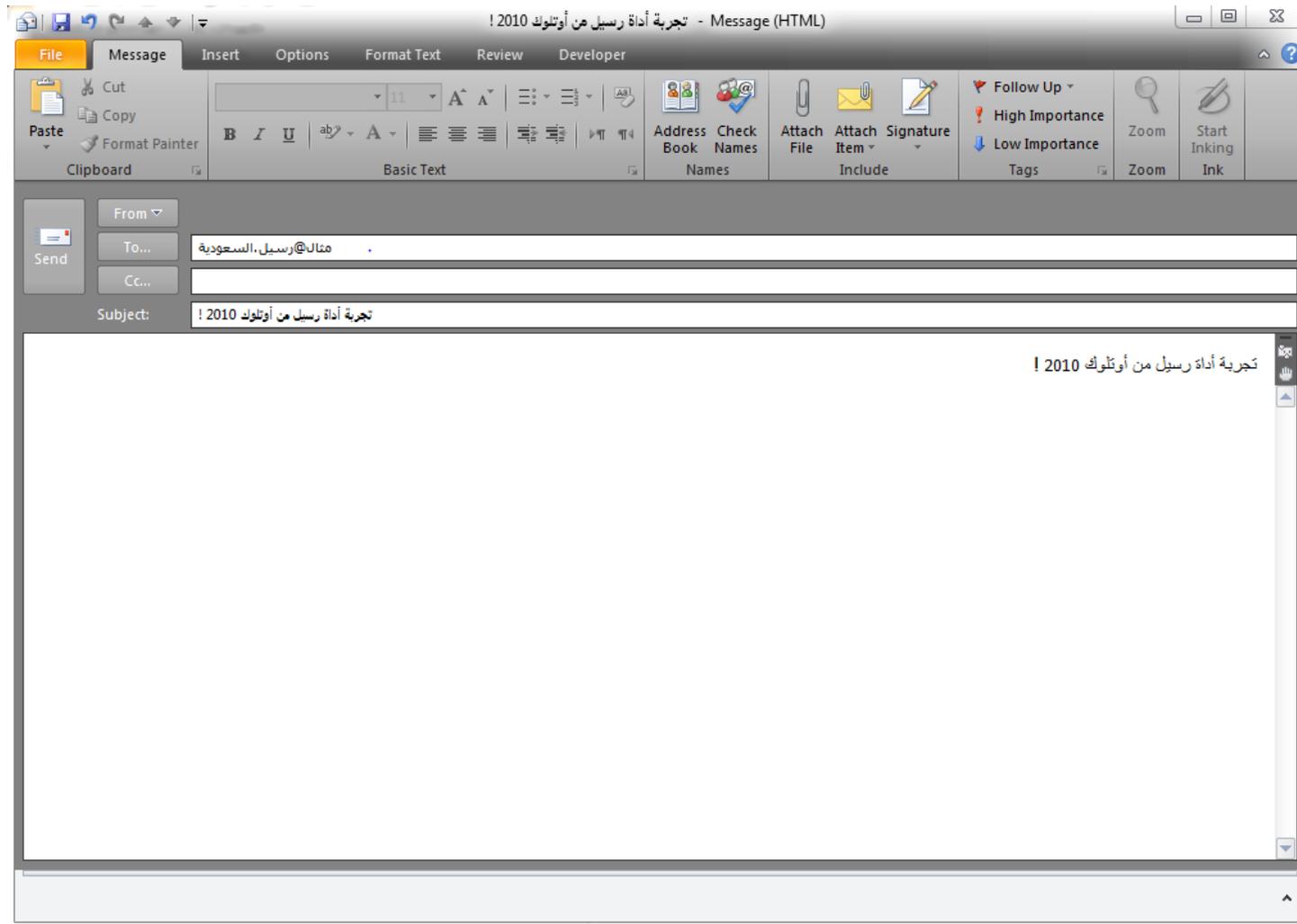


Raseel Components:

- Punycode convertor that convert unicode to punycode and vise versa.
- Outlook plugin
- Web mail Plugin
- Usernames (local part of the email) stored as punycode in the email server.



Arabic Emails in Outlook





Raseel, Official Website

رسيل.السعودية



ساهم معنا برأيك

عن المشروع الأسئلة الشائعة كيف أشترك الشروط و الأحكام أداة رسيل بريد رسيل لقطات

مشروع رسيل

مشروع رسيل هو ثمرة الإتفاقية التي أبرمتها هيئة الاتصالات وتقنية المعلومات مع مدينة الملك عبدالعزيز للعلوم والتقنية في مجال البحث والتطوير في أسماء النطاقات العربية وهو يهدف إلى فهم متطلبات تقديم خدمة البريد الإلكتروني بالعناوين العربية و التحديات التي قد تعوق ذلك من خلال بناء موقع وأدوات لتقديم أهم الخدمات الأساسية المتعارف عليها في البريد الشبكي .

ابدأ مع بريدك العربي



The Next Step

- Raseel 2
 - Developing more client/server tools to support Arabic emails (as mobile,web and desktop applications)
 - Studying more mechanisms to support Arabic Emails other than Punycode.



More Info

- <http://xn--wgbe5cxa.xn--mgberp4a5d4ar/> رسيل. السعودية
- <http://nic.sa>



Thanks