

Email Address Internalization (EAI) - अजय@डाटा.भारत



Public Update

Barcelona
23rd Oct 2018

Dr. Ajay Data

Co-Chair NBGP

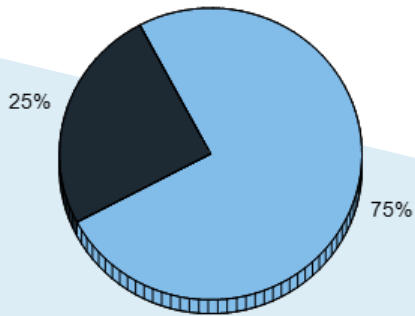
Coordinator EAI – UASG

Member – ISPCP Constituency

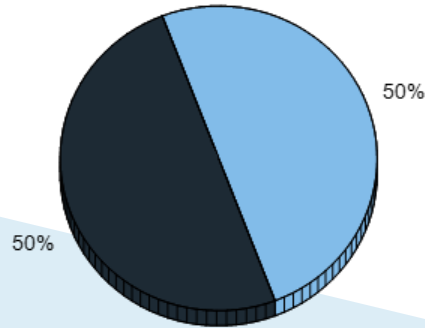
ccNSO Council Member – Oct25th

Warm-up Exercise

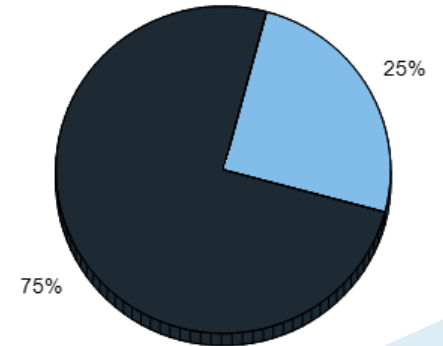
According to w3techs, which of the following pie charts most closely represents the fraction of websites on the Internet that are primarily English language based content?



25% English
75% All other



50% English
50% All other

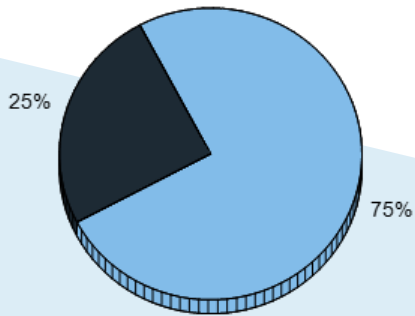


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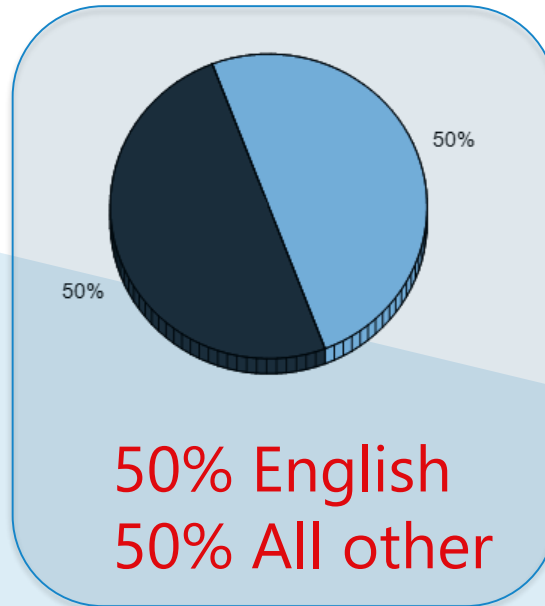
Actual data can be found at https://w3techs.com/technologies/history_overview/content_language/ms/y. Data shown is approximate.

Warm-up Exercise: Solution

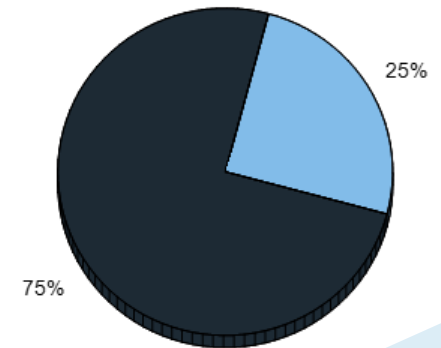
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www.cafe123.com



Third Level Domain Second Level Domain Top Level Domain (TLD)

Syntax of ASCII TLD
Use only Letters [a-z]

हिन्दी.भारत

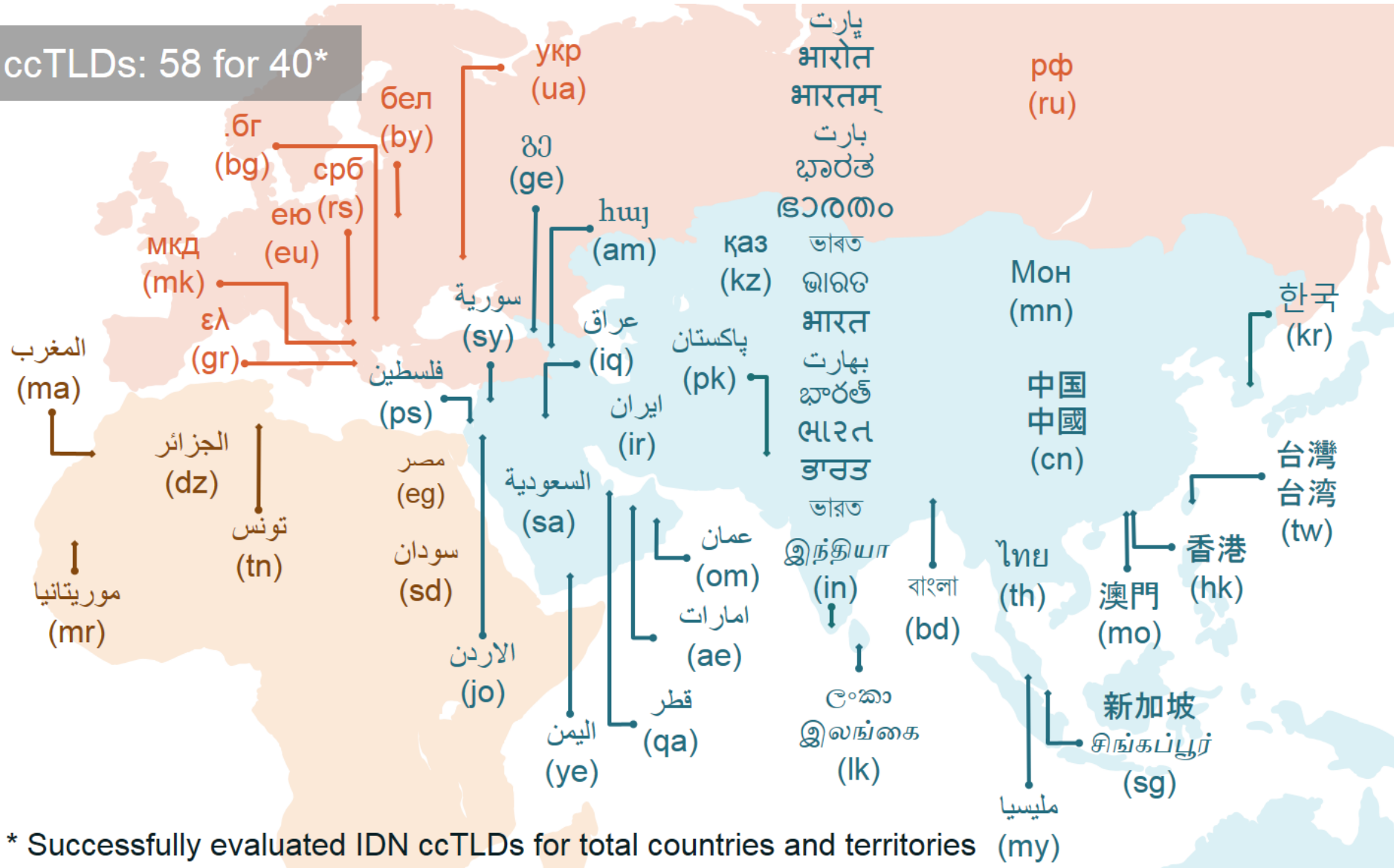


IDN Second Level Domain IDN Top Level Domain (TLD)

Syntax of IDN TLD
U-Label, constrained by the “letter” principle

IDN Country Code Top-Level Domains

ccTLDs: 58 for 40*



* Successfully evaluated IDN ccTLDs for total countries and territories

Internationalized Domain Name: IDN

राजस्थान.भारत
मेल.डाटा.भारत
मेल.राहुलदेव.भारत
पत्रिका.भारत
मेल.माइक्रोसॉफ्ट.भारत

почта.рус
डाटाभेल.भारत
डाटाभेल.भारत
डाटाभेल.भारत
डाटाभेल.भारत
डाटाभेल.भारत

डाटाभेल.भारत
داده.امارات
இந்.இந்தியா
电邮.在线
датамэйл.рф
датамэйл.рус
දත්තවැනි.ලංකා
ดาต้าเมล.ไทย
डाटाइंफोसिस.भारत
एक्सजेनप्लस.भारत

Email Address Internationalization: EAI

Email Address Internationalization (EAI)

Email addresses contain two parts:

1. **Local part** (the username, before the "@" character)
2. **Domain** (after the "@" character, which in this case includes the **TLD** part)

EAI - Examples

- ✓ अजय@डाटा.भारत (Hindi)
- ✓ สนับสนุน@ดาด้าเมล.ไทย (Thai)
- ✓ વૈશાલી@દાતા.ભારત (Gujrati)
- ✓ மனிஷ்@ட்ட.பாரத (Tamil)
- ✓ ప్రియాంక@డేటా.భారత్ (Telugu)
- ✓ ریاضان@ڈیٹا.بھارت (Urdu)
- ✓ поддержка@почта.рус (Cyrillic)
- ✓ র্যাম@ডাটামেল.ভারত (Bengali)

अजय@uasg.tech
uasg@डाटा.भारत

And SO On.....

DNS Configuration - MX

डेटामेल.भारत

xn--c2bd4bq1db8d.xn--h2brj9c

2402:8c00:2::8336

datamail.in

datamail.in

2402:8c00:2::8336

↑
punycode

Client Software (MUA – Mail User Agent)

- * Display the domain name in Unicode.
- * Pass the domain name to the MTA (Mail Transport Agent) in A-Label format (RFC 5890).
- * Store and display the Mailbox name in Unicode.
- * Follow good practice guides for Linkification within the body of the email (see UASG 010 – Quick Guide to Linkification).
- * Follow good practice guides for validation of domain name (see UASG 007 – Introduction to Universal Acceptance).

Visit **uasg.tech** documents section

Server Software (MTA - Mail Transport Agent)

- * Confirm EAI-readiness (e.g. advertise SMTPUTF8 support) when making connection to another MTA.

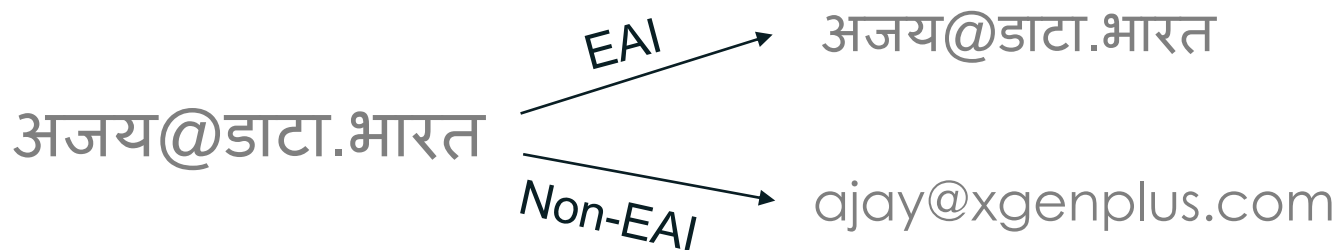
```
220 SpamJadoo Antispam SMTP Service by http://datainfosys.net
EHLO EC2AMAZ-CT1LM3F.mxtoolbox.com
250-SIZE 100145728
250-ETRN
250-STARTTLS
250-SMTPUTF8
250-8BITMIME
250-AUTH=LOGIN
250-AUTH LOGIN PLAIN DIGEST-MD5 CRAM-MD5
250 PIPELINING
```

POP & IMAP Servers

- * Post Office Protocol version 3 (POP3) supports international strings encoded in UTF-8 in usernames, passwords, mail addresses, message headers, and protocol-level text strings (see RFC 6856).
- * Internet Message Access Protocol (IMAP) supports UTF-8 encoded international characters in user names, mail addresses, and message headers (see RFC 6855).

Downgrading – Backward Compatibility

- * When an MTA attempts to send a message to a recipient, the attempt may fail because the recipient MTA doesn't offer SMTPUTF8, or rejects the message with a status code that indicates that the recipient doesn't accept EAI mail. At that point the MTA might attempt to create a downgraded version of the message to send to the recipient. In theory any MTA in the message's path might do this, but the result is more likely to be useful if the MTA can find substitute addresses (alias) for the EAI addresses in the downgraded message. The most likely situation for a successful downgrade is a webmail system that integrates the MUA, MSA, and outgoing MTA into a single package.



Success

- * Govt of Rajasthan - Every Citizen FREE Hindi Email
- * Police Department
- * BSNL
- * School Education
- * DataMail
- * Russia
- * Thai
- * Korea
- * China
- * Bangladesh
- * Oil Company – 25000 petrol pumps

Being EAI Ready makes business sense

\$ 10 billion opportunity

Being UA ready is not just a tech trend but makes business sense.

Thank you

Reach me at

Dr. Ajay Data

ajaydata@xgenplus.com

अजय@डाटा.भारत

@ajaydata on twitter