Email Address Internalization & IDN’s

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https://www.xgenplus.com
Understanding Domains

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
Brief IDN History

• Since last 17 years – work on IDNs is going on.
  • First IDNs were made available in 2010
  • India adopted IDNs in 2014
Domains v/s IDNs

What has changed with Top-Level Domains?

- **DOMAIN NAME**
  - Latin letters a to z without accents or symbols.
  - .org
  - .com
  - .uk

- **2009**
  - INTERNATIONALIZED DOMAIN NAMES ADDED
  - Characters from different scripts.
    - .arab
    - .china
    - .rf
Opportunity

Why Internationalize Domain Names?

More and more people around the world, once unconnected, are online.

Number of Internet Users Worldwide

- 2000: 413M
- 2014: 2.9B
- 2020: 5B expected (more language communities join)

Source**: internetlivestats.com
EAI - Email Address in your language

- अजय@डाटा.भारत (Hindi)
- ਨਿਉਟਾਲੀ@ਦਾਤਾ.ਭਾਰਤ (Punjabi)
- वैशाली@डाटा.भारत (Gujrati)
- நேர்மிகா@டேட்டா.பாரத (Tamil)
- వైశాఖు@డేటా.భారత్ (Telugu)
- رضوان@ڈیٹا.بھارت (Urdu)
- संपर्क@डेटामेल.भारत (Marathi)
- যোগম@ডাটামেল.ভারত (Bengali)

And SO On............
International Scripts

✓ 祐@电邮.在线 (Chinese)
✓ رام@دابة.امارات (Arabic)
✓ аджай@почта.рус (Russian)

and more to come..
Moving from 256 chars to million chars

• ASCII 256
• UTF-8 – 17 plates with 65536 characters per plate = 1,114,112
12 Major Components

Webmail, IMAP, POP, SMTP, contacts, calendar, antispam, search, storage, logger, rules and email client apps.
Some of the Global challenges

x.pyc and x.pyc are different – Really
IOS Mail Client – Do not support EAI configuration
Major Email Service providers globally not UA Ready
Social Media – Not accepting
Punnycode is a way to represent International Domain Names (IDNs) with the limited character set (A-Z, 0-9)

डाटा.भारत - IDN

xn--c2bd1gb.xn--h2brj9c - punnycode
Unique Email address with symbols

❤️@data.in
✍@xgenplus.com
Universal Acceptance

Internet applications and systems must treat all TLDs in a consistent manner, including new gTLDs and internationalized TLDs. Specifically, they must accept, validate, store, process and display all domain names.

https://uasg.tech/
Global Support

- Gmail - send and receive support
- Yandex – send and receive support
- Postfix – send and receive support
- Hotmail – send and receive (with punnycode)
- Yahoo – send and receive (with punnycode)
- Chrome / Edge / Firefox supports fully.
Downgrading

Traditional mail systems handle only ASCII characters in SMTP envelope and mail headers. The Email Address Internationalization (EAI) is implemented by allowing UTF-8 characters in SMTP envelope and mail headers. To deliver Non-ASCII mail address through EAI incompliant environment, some sort of converting mechanism (i.e. downgrading) is required.
Advance Downgrading

Using the Email Alias capability and merging two IDs in one mailbox, it's possible to downgrade the email with proper ASCII email address, which is readable to human.

EAI – From Header - Sender
अजय@डाटा.भारत

EAI – From Header - Recipient
ajay@xgenplus.com

ADVANCED DOWNGRADING
Xgenplus unique innovation to make EAI mailbox more usable

Using the Email Alias capability and merging two IDs in one mailbox, it's possible to downgrade the email with proper ASCII email address, which is readable to human.
Our Email Experience

• 17 years of email solution development experience
• 12 million live email accounts
• No open source email component is used
• 100% control over the solution customization
• India’s largest email service provider

• Try out FREE by installing DATAMAIL app and experience.
Lets Discuss - Questions

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अजय@डाटा.भारत - EAI
www.ajaydata.com on web

Or simply

Google “ajay data”