



Bridging the Digital Divide Through the True Internationalization of Email

Situation Overview

Xgen provides email solutions for the global market, supporting 11 million users including governments, telecoms, enterprises and individuals. As a company based in India, a country with 1.2 billion people, 22 official languages in 12 different scripts and just 12 percent native English speakers, the team at Xgen inherently understood the need for people to have email addresses in their native scripts. As the online population grows, there is an increasing need to make the Internet more accessible in local languages, and email address internationalization (EAI) has an important role to play.

The introduction of internationalized domain names (IDNs) and the Indian government's launch of .भारत (.bharat) in the devanagari script (covering eight languages including Hindi, Konkani and Marathi)¹, led to Xgen focusing on internationalization issues of email addresses – or EAI. EAI is part of the broader Universal Acceptance (UA) initiative, which provides a gateway to the next billion Internet users by ensuring that all domain names and email addresses can be used by all Internet-enabled applications, devices and systems.

Universal Acceptance Approach

For Xgen's enterprise email solution to be UA-ready, it needed to support both internationalized email and IDNs. This required updating more than 30 components, including at least 12 major elements, such as webmail, IMAP, POP, SMTP, contacts, calendar, antispam, search, logger and rules. Critical to the process was updating all components in conjunction with accurately testing the solutions. Xgen began the process prior to other EAI solutions becoming available on the market. This meant there were no other experiences for EAI acceptance, validation, storage, processing and display. Leveraging the nearly 20 years of experience in email systems, the Xgen software development team looked at the existing source code of its email solution as well as existing EAI references such as relevant requests for comments (RFCs) and ICANN UA guidelines. They also factored in their overall understanding of email clients and general issues faced by the Internet community to develop a workable solution.

During the time Xgen was updating its entire stack of email software, Microsoft launched Outlook 2016, a fully EAI-compliant client and Google updated Gmail to allow users to send and receive emails from people who have non-Latin characters or

Universal Acceptance Case Study:

Data Xgen Technologies Pvt Ltd

Industry: Internet services

Location: Jaipur, India

UA-Ready Systems:

- * Xgenplus (enterprise email solution)
- * Spamjadoo (anti-spam solution)
- * TBMS (trackable bulk mail system)
- * DataMail (free app EAI email service available on iOS and Android)

Benefits Identified:

- * Allows people to have email addresses in their native languages.
- * Helps bridge the digital divide by increasing the percentage of non-English speakers who can interact online, particularly in rural areas.

"Universal Acceptance-ready systems empower businesses to truly serve a global market. For Xgen, we took the lead in the internationalization of email addresses so people can use their native scripts for their email identities. For non-English speakers, this process helps bridge the digital divide and lets people from across the world and within their own villages communicate more easily."

— Dr. Ajay Data
Founder and CEO
Data XGen Technologies



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accented characters in their email addresses. With these solutions in the market, it made the testing easier and sped up the process for becoming EAI-ready.

The entire process, which began in 2014, took two years to complete, and by the end of 2016 Xgen supported 11 different scripts. As new IDNs and associated email addresses in other scripts are added to the Internet, Xgen expects to fully support those new scripts within just 15 days.

To help other companies determine if their systems are EAI-ready, Xgen created a free EAI tool. By simply entering an email address on the site, the tool allows email users and administrators to check their SMTP/IMAP servers for EAI readiness. It also creates connections to the target email server and reports back on EAI compliance.

In addition to its enterprise offering, Data Xgen Technologies also launched a free mobile app called DataMail. The service is available in English and eight Indian languages - Hindi, Gujarati, Urdu, Punjabi, Tamil, Telugu, Bengali and Marathi – as well as Cyrillic. The company launched services in Russian script as `почта.рус` service and enabled Arabic and Chinese in the DataMail app. Like its enterprise counterpart, Data Xgen made the decision to launch an EAI service to bring more people online in their native languages.

The introduction of EAI enterprise webmail systems and new applications available for companies to check if systems are EAI ready should greatly decrease the time it takes for organizations to make their email platforms UA-ready. More information on UA readiness can be found in the documents section at <http://uasg.tech/>.

About:

Data Xgen Technologies

Data Xgen Technologies develops and delivers complete enterprise email solutions for unified communications to clients worldwide. It is the creator of DataMail, the world's first free email service for international languages. Through its next-generation secure and affordable email platforms, Data Xgen Technologies serves organizations of all types and sizes with a vision to be a global, innovative leader in the email marketplace.

¹ The Government of India has also launched .ভারত, .ಭಾರತ್, .भारत, .भारत, .بھارت, .भारत and .இந்தியா and is working on another four.