



Universal Acceptance : Way Forward

SANOG 41, Mumbai, India
Dr. Devesh Tyagi CEO, NIXI

Universal Acceptance

“Universal Acceptance (UA) ensures that all domain names, including new top-level domains (TLDs), Internationalized Domain Names (IDNs), and email addresses are treated equally and can be used by all Internet-enabled applications, devices, and systems. UA provides the gateway to the next billion Internet users”

UA is a global effort to drive a more inclusive and multilingual internet. A cornerstone of today's global Internet, UA offers many benefits for both individual Internet users as well as the organisations that serve them.

Achieving UA ensures everybody can experience the full social and economic power of the Internet using their chosen domain name and email address that best aligns with their interests, business, culture, language, and script.

UA is the gateway to a more inclusive and multilingual Internet, it promotes consumer choice, improves competition, and provides broader access to end users.

Elements of Universal Acceptance

- **Accessibility:** UA is a technical compliance process that ensures that all domain names and email addresses can be used by all Internet-enabled applications, devices and systems.
- **Interoperability:** UA provides a gateway to the next billion Internet users. It enables governments and societies to better serve their communities through the use of an increasing number of new domains and many other scripts.
- **Technical Front:** On the technical front, UA means an environment through which any computing device, operating system, browser, or social media/e-commerce app accepts instructions in a local language (other than English).

Building UA Readiness

Making Applications/Platforms UA-Ready

In essence, support all valid domain names and email addresses:



Accept



Validate



Process



Store



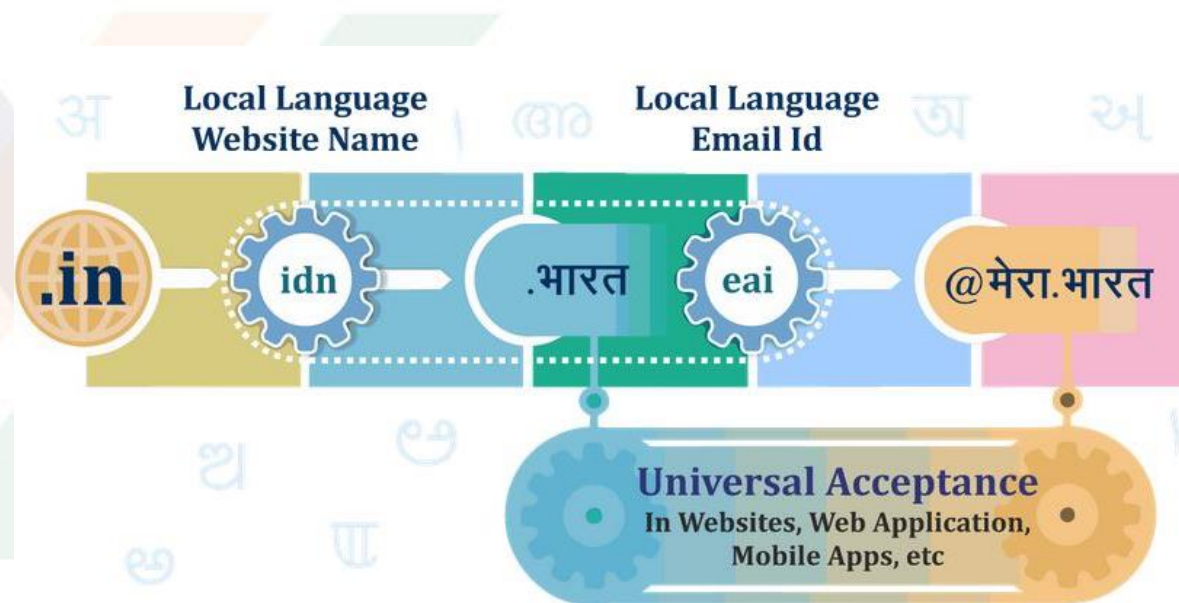
Display

- **Accept:** The user can input characters from their local script into a text field.
- **Validate:** The software accepts the characters and recognises them as valid.
- **Process:** The system performs operations with the characters.
- **Store:** The database can store the text without breaking or corrupting.
- **Display:** When fetched from the database, the information is correctly shown.

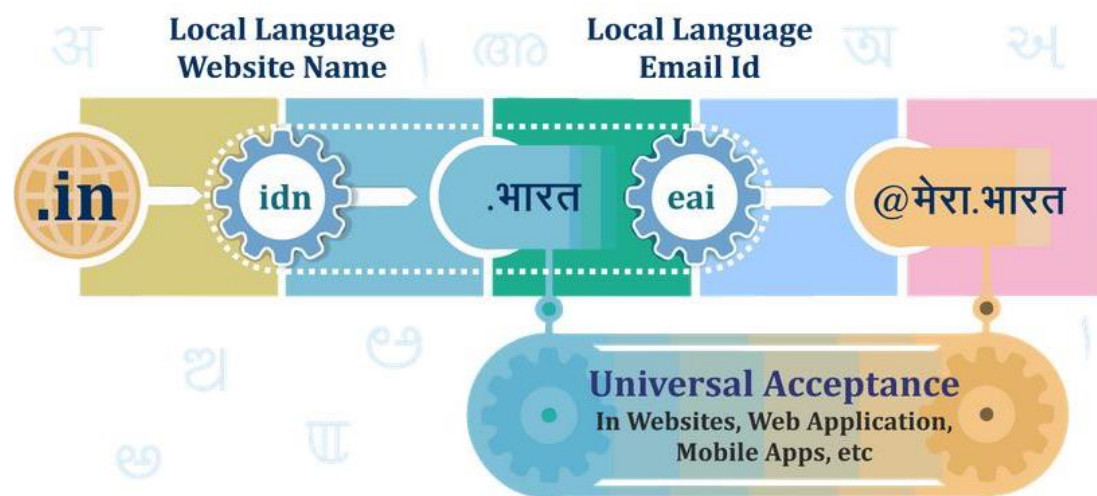
Internationalised Domain Names

IDNs

- In the past, top-level domains (TLDs) have mostly been two or three letters long formed with Latin characters a-z (e.g., .com, .org). The evolution of the DNS has allowed for newer and longer TLDs. There are now over 1,200 new generic gTLDs that represent brands, communities, and geographies
- These new TLDs also include Internationalised Domain Names (IDNs) & country code Top-Level Domains (ccTLDs), which allow for domain names in local languages and scripts such as “.भारत” and “بھارت.” (“bharat” written in Devanagari (Hindi) and Arabic (Urdu))



Email Address Internationalisation



EAI

- Initially, email addresses were also not available in local languages and scripts. Email Address Internationalization (EAI) addresses this limitation and allows for having email addresses in local languages and scripts.
- Consider the example of **संपर्क@रजिस्ट्री.भारत**

NIXI Initiatives for UA

- NIXI is the only registry in the world offering the highest number of IDN domains (15 ccTLDs) in all 22 scheduled Indian Languages
- In 2014, the Registry began supporting the registration of ".भारत" in eight languages
- Since March 2019, the Registry has allowed all domain operations using an IDN in U-Label form.
- The Registry always presents both the ASCII and U Label for IDNs in lookups to ensure that the translation between the two forms is provided to the Registrar so that there is complete clarity as to what the DNS records would appear like for a Registered IDN.
- Free IDN ("भारत") Domain with every '.IN' Domain.



UA in India

India has made IDNs available in :

- Hindi
- Bodo(Boro)
- Dogri
- Konkani
- Maithili
- Marathi
- Nepali
- Sindhi
- Bengali
- Manipuri
- Assamese
- Telugu
- Gujarati
- Urdu
- Tamil
- Punjabi,
- Kannada
- Odia,
- Sanskrit,
- Santali,
- Kashmiri,
- Malayalam.



NIXI registry supports :

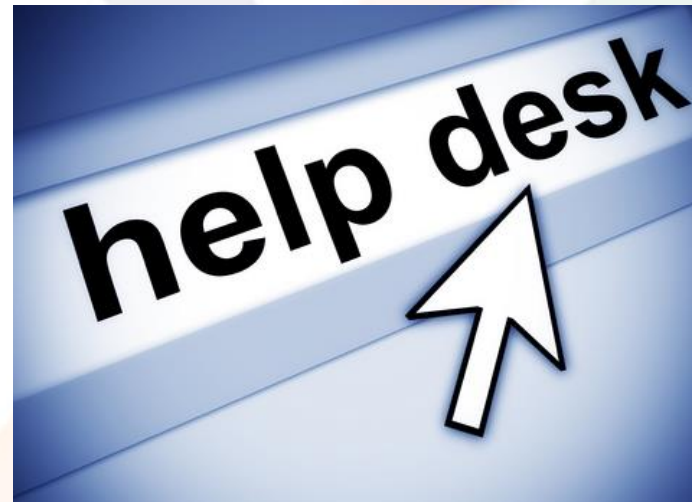
اتصال@رجسٹری.بھارت
 संपर्क@रेजिस्ट्री.भारत
 যোগাযোগ@রেজিষ্ট্রি.ভারত
 যোগাযোগ@রেজিস্ট্রি.ভারত
 যোগাযোগ@বেজিষ্ট্রী.ভাৰত
 संपर्क@रनिमटरी.भारत
 संपर्क३री@रजिस्ट्री.भारत
 தொடர்பு@ரெஜிஸ்ட்ரி.இந்தியா
 اتصال@رجسٹري.پاکستان
 సంప్రదించండి@రిజిస్ట్రీ.భారత్
 సంపర్కసి@రజిస్ట్రీ.భారత్
 ബന്ധപ്പെടുക@രജിസ്ട്രി.ഭാറത്
 ६०
 संपर्क@रेजिस्ट्री.भारतम्



Have you tried to handle UA issues starting
from your ccTLD registry operator or region?
Any results and lessons learned?

UA initiatives by NIXI

UA Task Force in NIXI to support UA Readiness. Helpdesk for helping email providers, web designers, software community to guide the adoption of UA



NIXI Universal Acceptance Helpdesk

Email: uasupport@nixi.in

Tel No.: +91-11-48202040

UA: Ongoing Efforts

Participation in Local UA Initiatives



NIXI is a proud member of the UASG

NIXI registered 140840 - एमजीएमडी.भारत for digital villages.



NIXI acts as a secretariat for the UA Implementation Committee

UA: Ongoing Efforts

- In 2023, India was the flag bearer to promote and promulgate universal acceptance which will allow internet access to a larger population and hence bring the citizens in the ambit of economic progress. This work was entrusted to NIXI and a Coordination Committee was formed to conduct UA Day.



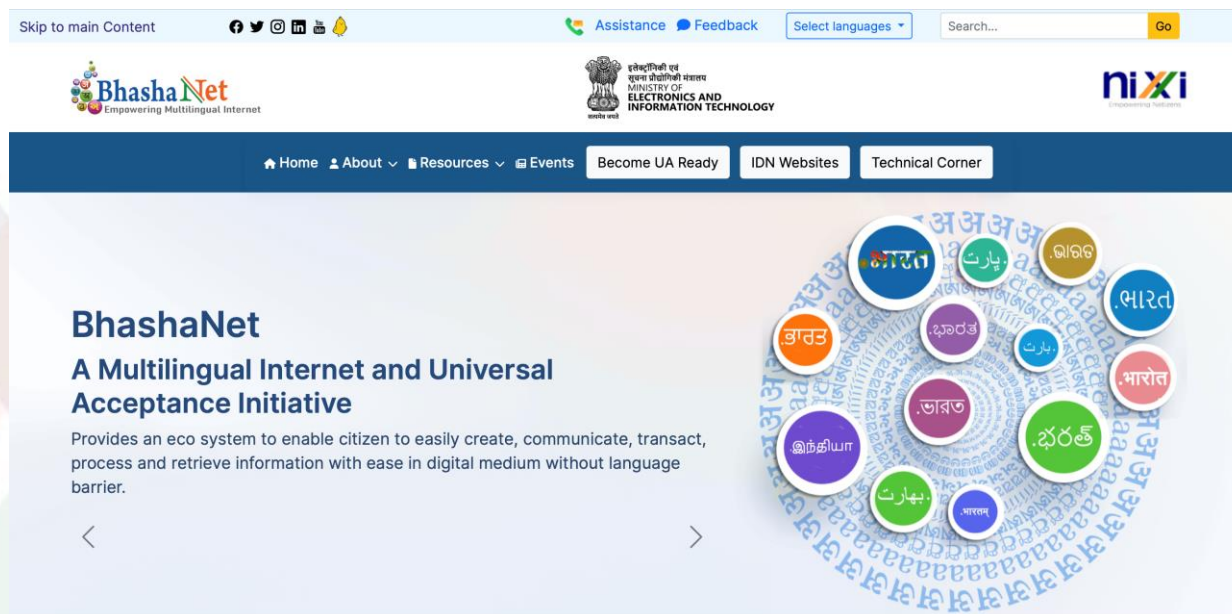
UA: Ongoing Efforts

- This year, we celebrated UA Day with the aim of increasing awareness and disseminating knowledge about the UA. NIXI and C-DAC created and launched the BhashaNet portal, which provides an ecosystem to enable citizens to easily create, communicate, transact, process and retrieve information with ease in digital mediums without a language barrier.



BhashaNet Portal

- The BhashaNet Portal aims to strengthen the UA ecosystem and promote the adoption of Multilingual Internet-ready solutions in India. It is designed to develop a comprehensive, multilingual IDN-ready knowledge dissemination portal which intends to serve as a hub for knowledge exchange, increasing awareness, engaging with stakeholders, and providing resources for software developers to address related to both IDN and Universal Acceptance (UA). The key objective behind this portal is to empower the developer community and interested stakeholders to make UA-ready websites and applications for a more inclusive multilingual internet.



The screenshot shows the BhashaNet Portal homepage. At the top, there is a navigation bar with links for 'Skip to main Content', social media icons, 'Assistance', 'Feedback', a 'Select languages' dropdown, a search bar, and a 'Go' button. Below this is the BhashaNet logo with the tagline 'Empowering Multilingual internet', the Government of India logo, and the Ministry of Electronics and Information Technology logo. A dark blue navigation bar contains links for 'Home', 'About', 'Resources', 'Events', 'Become UA Ready', 'IDN Websites', and 'Technical Corner'. The main content area features a large graphic of a globe with various Indian languages written in their respective scripts (Hindi, Bengali, Gujarati, Kannada, Malayalam, Marathi, Odia, Punjabi, Tamil, Telugu, Urdu). To the left of the graphic, the text reads: 'BhashaNet A Multilingual Internet and Universal Acceptance Initiative. Provides an eco system to enable citizen to easily create, communicate, transact, process and retrieve information with ease in digital medium without language barrier.'

To learn more about the portal
head to: <https://www.facebook.com/watch/?v=1451415959104121>

UA: Way Forward

- Conducting various awareness & training programmes with support from domain experts for Capacity Building.
- Enabling & Support to Govt. of India websites & Private websites for IDNs & UA.
- Support to early movers, private players, social media platforms and others for IDNs & UA Adoption.
- Creation of various Policies for UA Readiness & Compliance.
- Enabling the applications, systems and devices to support sending and receiving of Multilingual Emails
- Establishment of the “Centre of Excellence (CoE) in UA” which will focus on development for essential tools/applications for the success of UA. Currently, there is a dire requirement for:
 - a) Development of SPAM filters for major Indian languages
 - b) Indigenous “India specific emailing system” supporting EAI & Various language tools

UA: Way Forward

Future Role of UA

- When the global Internet community talks about the next billion people coming online, they are talking about Asia. New Internet users work to introduce Internationalised Domain Names, or IDNs, and new generic top-level domains will overwhelmingly be using the languages of Asia.
- We are still home to over 60 per cent of Internet users who are non-English speakers, yet, the dominant language used on the Internet is English.
- To join the UA impetus head to '<https://bhashanet.in/home>' ; You can use the portal's robust ticketing system to raise any queries on the same.
- To learn more about UA, Head to 'uasg.tech' and 'icann.org/ua' Know more about The ICANN and its Universal Acceptance Steering Group (UASG) created to promote UA-readiness globally.

UA: Way Forward

*I encourage you all to take active participation in discussion(s) and explore the resources shared to learn more about our novel initiative which can help you in realising the untapped potential of the Internet.
Let's work together to build an internet for all.*

