

ICANN NextGen / UA Day 2025

Universal Acceptance & Email Address Internationalization

Breaking digital barriers and building a
multilingual Internet for all

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Technical standards • Global policy • ASEAN/Vietnam action plan

Executive Overview & Strategic Roadmap

A 10-minute journey from problem → standards → action



01 Invisible Barrier

Non-ASCII users are still blocked by legacy forms, validation rules, and identity systems.



02 Tech + Governance

EAI, IDN, RDAP and ICANN-UNESCO alignment turn inclusion into deployable infrastructure.



03 Regional Action

Vietnam and ASEAN can convert UA Day momentum into checklists, procurement rules, and developer practice.

The Digital Exclusion Reality

When native-language identity meets ASCII-only systems

Registration form showing an error message for an email address that is not in ASCII format.

5B+

people use languages with non-Latin /
non-ASCII scripts -> `nguyễn@abc.cn`

TYPICAL FAILURE

"Invalid Email Format"

even when the user enters a legitimate localized
address

HUMAN IMPACT

Banking • e-Gov • e-KYC

exclusion becomes loss of access to essential
services

Technical Foundations: UA Principles & EAI Stack

End-to-end readiness: input, validation, storage, processing and display



Protocol Upgrades: WHOIS → RDAP

Why registration data modernization matters for IDNs and UA

Legacy WHOIS

- ASCII-restricted text
- Punycode-heavy IDN display
- Unstructured free text
- No native authentication model

Registration Data Access Protocol (RDAP)

- Native UTF-8 support
- Structured RESTful JSON
- Cleaner multilingual output
- HTTP/OAuth2 and role-based access

Technical takeaway: RDAP gives IDNs a reliable, parseable and internationalized data layer.

Policy & Governance: Global Collaboration

Technical standards scale only when policy turns them into requirements

GLOBAL ALIGNMENT

ICANN + UNESCO

- International Decade of Indigenous Languages context
- Digital spaces that protect linguistic and cultural identity
- Multi-stakeholder bridge between policy and technology

POLICY LEVER

Public procurement

- UA-ready requirements in RFPs
- Software vendor accountability
- Government systems as market makers

Standards → Policy → Procurement → Software behavior

Localization Anchor: UA Day 2025 Flagship

Hanoi as an Asia-Pacific launch pad for UA implementation

Hanoi, Vietnam

May 8, 2025

- Co-hosted with ICANN, UNESCO, UASG and Vietnam stakeholders
- Connected to APAC DNS community momentum
- Practical launch pad for .vn IDNs and Vietnamese diacritics

STRATEGIC LEVERAGE

- National digital transformation policy
- Enterprise patching: FPT, Viettel, VNG and local platforms
- Regional developer readiness playbook

Vietnam → APAC → ASEAN

Regional Blueprint: Vietnam Leading ASEAN Integration

From national pilot to cross-border multilingual interoperability



Benchmark

Fiji's DNSSEC leadership shows how one country can anchor regional technical practice.

Vietnam Pilot

Use VNNIC and UA Day momentum to train engineers and validate local services.

ASEAN Standard

Align procurement and e-commerce across Thai, Lao, Khmer and Vietnamese scripts.

Strategic Roadmap: Procurement & Enterprise Deployment

How institutions move toward UA without breaking legacy operations

PUBLIC SECTOR MANDATES

Make UA a buying requirement

- Require UA-readiness proof in RFPs for CRMs, ERPs and citizen portals
- Audit e-government portals for native-script compatibility
- Use public procurement to shift vendor behavior

ENTERPRISE STRATEGY

Deploy safely in stages

- Dual-addressing: native EAI address + ASCII alias
- Helpdesk playbooks for IDN-related support tickets
- Register IDN variants for brand protection

Policy creates demand. Enterprise design manages transition risk.

Youth Leadership & the NextGen Imperative

From internet users to architects of inclusive infrastructure

"The Internet is no longer a place we merely visit; it is the environment in which we live."

— Areeba Shahid, Youth Advocate

Curricula

Add UA, EAI and IDN modules to CS / SE courses

Open source

Patch validation libraries and framework defaults

Hackathons

Stress-test regional apps during UA Day events

Building a Barrier-Free Digital Future

Technical

EAI • RDAP • UTF-8

Policy

ICANN-UNESCO • Procurement

Local action

Hanoi • Vietnam • ASEAN

Universal Acceptance is not just a protocol fix — it is digital equity in the language and identity of every user.

[#Internet4All](#) • [Q&A](#)

SOURCES:

1. <https://www.icann.org/ua-day-2025-events-en>
2. <https://www.icann.org/en/blogs/details/ua-day-2025-report-thousands-join-to-advance-universal-acceptance-26-06-2025-en>
3. <https://vnnic.vn/vi/tin-tuc-su-kien/tin-tong-hop/su-kien/su-kien-quoc-te/icann-apac-dns-forum-2025-voi-chu-de-internet>.
4. <https://apacdnsforum.asia/events/apac-dns-forum-2025/>
5. <https://www.icann.org/resources/press-material/release-2025-04-28-en>

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