

**ICANN**

**VIRTUAL ANNUAL GENERAL**

**72**



# UA Readiness in FY21 and FY22 Action Plan

Progress and Next Steps for Universal Acceptance

Universal Acceptance Steering Group (UASG)

ICANN72 Prep Week

12 October 2021



Universal Acceptance

# Overview

- \* Introduction to Universal Acceptance (UA) and UA Steering Group (UASG) – Dr. Ajay Data, Chair, UASG
- \* UA-Readiness in FY21 – Dr. Ajay Data
- \* Action Plan for FY22
  - \* Technology Working Group – Satish Babu, Chair, Technology WG
  - \* Email Address Internationalization (EAI) Working Group – Mark Svancarek, Chair, EAI WG
  - \* Measurement Working Group – Nabil Benamar, Chair, Measurement WG
  - \* Communications Working Group – Maria Kolesnikova, Chair, Communications WG
  - \* Local Initiatives Working Group - Dr. Ajay Data
- \* Discussion on Next Steps - All

# What is Universal Acceptance?

## Vision

All domain names and all email addresses work in all software applications.

## Mission

To mobilize software application developers, email tool and service providers, ICANN org, and the domain name industry to get their products and services UA-ready.

# Universal Acceptance Steering Group (UASG)

The UASG was founded in February 2015 and is tasked with undertaking activities that will effectively promote the Universal Acceptance of all valid domain names and email addresses.

The UASG's main objectives are to:

- \* Raise awareness of UA issues among relevant stakeholders.
- \* Help developers make their systems UA-ready by providing documentation and getting common standards, technology, and tools UA-ready.
- \* Encourage businesses and governments to ask their developers and suppliers to provide UA-ready solutions for the benefit of end users.
- \* Measure the progress of UA-readiness.

# Main Categories Affected by UA-Readiness

## Domain Names

- New short top-level ASCII domain names: example.sky
- New long top-level ASCII domain names: example.engineering
- Internationalized Domain Names (IDNs): คน.ไทย

## Email Addresses

- ASCII@ASCII (new and long TLD): ekrem@misal.istanbul
- ASCII@IDN: marc@société.org
- Unicode@ASCII: 测试@example.com
- Unicode@IDN: όνομα@παράδειγμα.eu
- Unicode@IDN; right-to-left scripts: ای-میل@مثال.موقع



Accept



Validate



Process



Store



Display

# UA-Readiness in FY21



# UA Stakeholders in FY21

- \* **Technology Enablers** - Providers of programming languages, tools, and frameworks.
- \* **Technology Developers** – Developers of online applications and services.
- \* **Email Software and Service Providers** – Providers of tools and utilities for the email ecosystem.
- \* **Email Administrators** – Administrators of email-related software and services.
- \* **Government Policymakers** – Managers of public policy and procurement.





# UASG Working Groups

<b>UASG Working Groups</b>	<b>Role</b>
Technology Working Group	Oversees remediation work on standards, programming languages, tools, and development platforms.
Email Address Internationalization (EAI) Working Group	Oversees engagement with email software and service providers to make them EAI-ready.
Measurement Working Group	Identifies UA-readiness gaps in tools and technologies.
Communications Working Group	Develops communication strategy and oversees its execution in collaboration with other working groups.
Local Initiatives Working Group	Conducts national or regional UA awareness, training, and stakeholder engagements.
UA Ambassadors	Organizes training and outreach at national and regional levels.

# Process to Address UA

## Remediation Cycle

\* Repeat for each technology for relevant stakeholders

- Analyze gaps
- Determine solutions
- Outreach and train on deployment
- Remediate tools



# Scope for UA-Readiness: All Software Systems

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## *Applications and Websites*

- *Wikipedia.org, icann.org, amazon.com, custom websites globally*
- *PowerPoint, Google Docs, Safari, Acrobat, custom apps*

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## *Social Media and Search Engines*

- *Chrome, Bing, Safari, Firefox, local (e.g., Chinese) browsers*
- *Facebook, Instagram, Twitter, Skype, WeChat, WhatsApp, Viber*

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## *Programming Languages and Frameworks*

- *JavaScript, Java, Swift, C#, PHP, Python*
- *Angular, Spring, .NET core, J2EE, WordPress, SAP, Oracle*

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## *Platforms, Operating Systems, and System Tools*

- *iOS, Windows, Linux, Android, App Stores*
- *Active Directory, OpenLDAP, OpenSSL, Ping, Telnet*

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## *Standards and Best Practices*

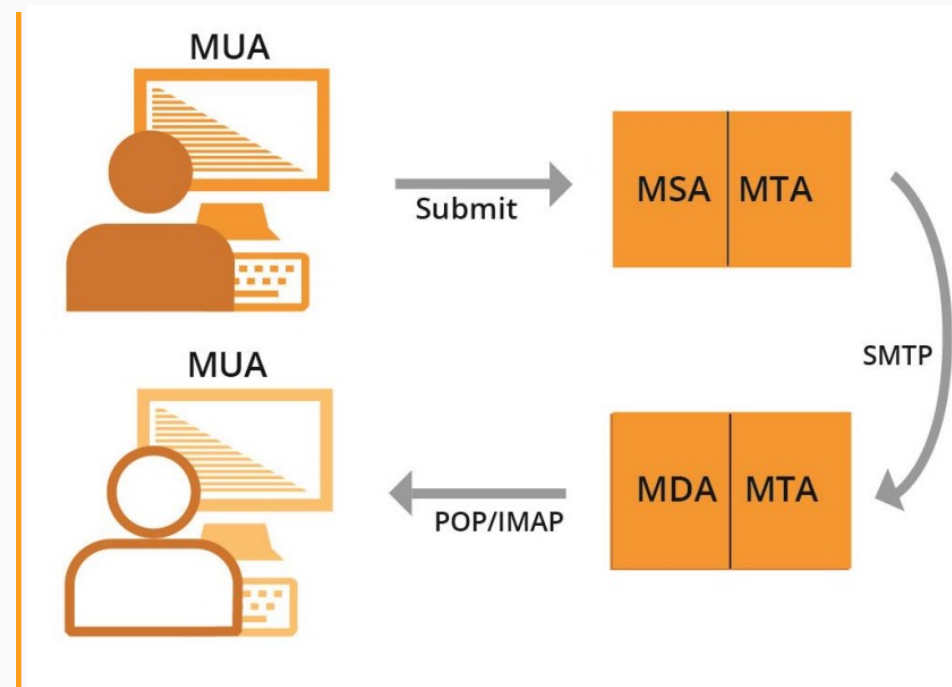
- *IETF RFCs, W3C HTML, Unicode CLDR, WHATWG*
- *Industry-based standards (health, aviation, ...)*

*UA-readiness needs to be fixed for multiple frameworks, utilities, tools, and applications at multiple layers of technology.*

# Scope for UA-Readiness: Email Specific Systems

All email agents must be configured to send and receive internationalized email addresses. See [EAI: A Technical Overview](#) for details.

- \* MUA – Mail User Agent
- \* MSA – Mail Submission Agent
- \* MTA – Mail Transfer Agent
- \* MDA – Mail Delivery Agent



- \* Level 1 (L1), if tool can only send to or receive from an EAI address.
- \* Level 2 (L2), if tool can also create an EAI address.

# Example of Gap Analysis: EAI Support by Email Tools and Services

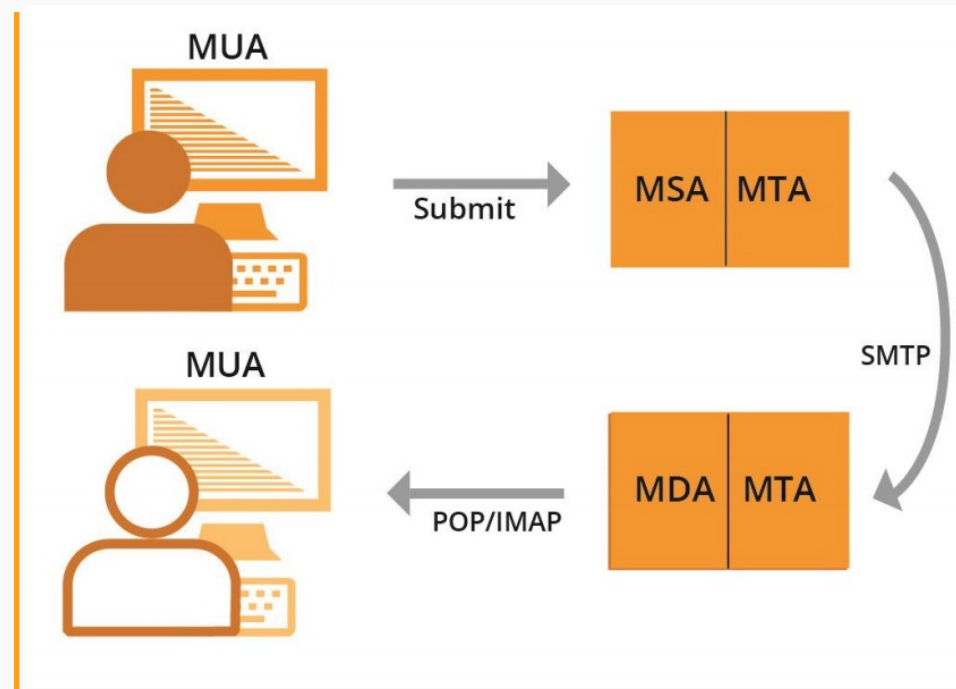
Name	MUA	MSA	MTA	MDA	MSP	Webmail
Coremail	Few	All L2	Most L2	Few	All L2	Most L2
MS Outlook.com	Most L1	Most L1	Most L1	None	None	Most L1
Yandex Mail	Few	None	None	Few	Part L1	Few
Roundcube	Most L2					
Apple Mail	Few					
Apple iOS Mail 14.x	Most L2					
Mozilla Thunderbird	Few					
MS Outlook	Most L1					
MS Exchange Server (hosted)		All L1	All L1	Few		
Exim		Most L2	All L2			
Postfix		All L2	All L2			
Courier		All L2	All L2	All L2		
Gmail	All L1	All L1	All L1	Few		
XgenPlus		Most L2	Most L2	Most	All L2	Most L2
Sendmail 8.17 Alpha		Most L2	Most L2			
Halon		Most L2	Most L2			
Thunderbird 89 beta	Most L1					
Dovecot				None*		

# Example of Remediation of Email Systems

Tested Sendmail 8.17 alpha 0 and alpha 2

Found a few bugs in the alpha 0 which we reported and were fixed.

As of Sendmail 8.17 alpha 2 and later versions, Sendmail has solid Level 2 EAI support in its MSA and MTA.



# Gap Analysis for UA-Readiness

UASG continues the gap analysis of different tools. Details are in the [UA-Readiness Report for FY21](#) published at <https://UASG.tech>.

- \* [UA-Readiness Framework](#) for UA test cases
- \* [Test Domain Names and Email Addresses for UA-Readiness Evaluation](#) (along with [data file](#))
- \* [UA-Readiness of Programming Languages and Frameworks.](#)
- \* [UA-Readiness of Networking Command Line Tools](#)
- \* [Universal Acceptance \(UA\) of Content Management Systems \(CMS\) Phase 1 – WordPress](#)
- \* [UA-Readiness of Popular Web Browsers](#)
- \* [Email Acceptance by Websites](#)
- \* [UA-Readiness of Open-Source Code Pilot](#)
- \* [UASG030A: EAI Support of Major Email Software and Services](#)
- \* [EAI-Readiness of Email Servers](#)

# Guidance and Training Materials for UA

The UASG also develops guidelines and training materials for stakeholders. Details are in the [UA-Readiness Report for FY21](#).

- \* [Considerations for Naming Internationalized Email Mailboxes](#)
- \* [White Paper on The Role of ccTLDs in Achieving Universal Acceptance](#) (in collaboration with Asia Pacific Top-Level Domain Association, APTLD)
- \* UA Technical Overview
- \* Configuring Email Address Internationalization (EAI)
- \* UA for Java Developers
- \* UA for Python Developers (in progress)
- \* UA Course on [ICANN Learn Platform](#)
- \* [Role of ccTLDs in Achieving UA](#) (in collaboration with APTLD)



# Guidance and Training for UA Globally

The UASG conducts active outreach and training for stakeholders using the materials developed. Details are in the [UA-Readiness Report for FY21](#).

- \* UA Local Initiatives:
  - \* China
  - \* Commonwealth of Independent States and Eastern Europe (Armenia, Belarus, Georgia, Latvia, Russia, Serbia, and Ukraine)
  - \* India
  - \* Thailand
- \* UA Ambassadors in Asia, Africa, and Latin America
- \* UASG leadership team and community members
- \* ICANN org

# Guidance and Training for UA Globally



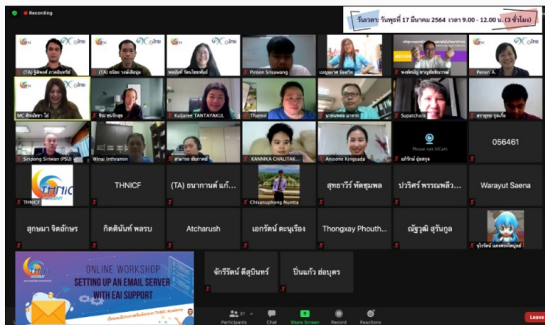
**Семинар для Java-разработчиков** (online)

Внедрение поддержки интернационализованных доменных имен и адресов электронной почты

25 ноября / 15:00

Мероприятие проводится Координационным центром доменов .RU/.PP

Поддержка PC



**CURSO ACEPTACIÓN UNIVERSAL**

Gratuito para técnicos

Carga horaria: 5 clases de 1:30 c/u

¿Eres programador?  
¿Sabes que es Aceptación Universal?  
No te quedes afuera del futuro!

Inicio: 04/Mayo/2021

Consultas: sylvia@internautabrasil.org

**apTLD Asia Pacific Top Level Domain Association**

APTLD Papers Series

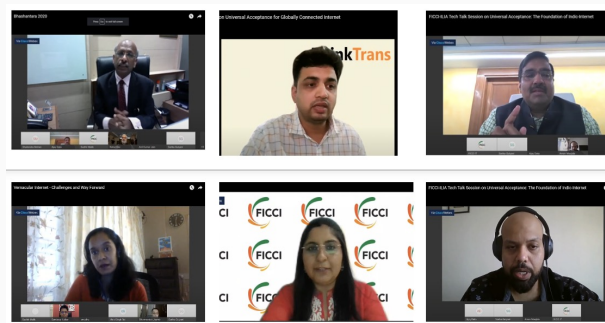
Paper# 6

**White Paper**

**The Role of Country Code Top-Level Domains (ccTLDs) in Achieving Universal Acceptance**

**UASG BLOG** //\*.\*/

**Spam Filter Testing Added to Evaluation of Internationalized Email Support Among Global Systems**



# Action Plan for FY22



# Process for FY22 Action Plan

- \* The UASG uses a bottom-up process to develop its annual action plan.
  - \* Based on current work, each working group develops their plan of action for the next year.
  - \* UASG leadership team collates the plans from the individual working groups and formulates the initial budget, adding administrative tasks.
  - \* The Action Plan, with overall plan and budget, is shared with the UASG community and more broadly for comments and feedback.
  - \* The comments are reviewed and integrated into the plan by UASG leadership.
- \*\*\* \* The final Action Plan is published on the UASG's website.
- \* [FY22 Action Plan](https://UASG.tech) published at <https://UASG.tech>.
- \* For earlier annual action plans, visit: <https://uasg.tech/information/members/operational-documents/>.

# UA Stakeholders in FY22

- \* **Technology Enablers** - Providers of programming languages, tools, and frameworks.
- \* **Technology Developers** – Developers of online applications and services.
- \* **Email Software and Service Providers** – Providers of tools and utilities for the email ecosystem.
- \* **Email Administrators** – Administrators of email-related software and services.
- \* **Government Policymakers** – Managers of public policy and procurement.

## New in FY22

- \* **Academia** – Students and faculty involved in technology programs.
- \* **Domain Name Industry** – Top-level domain (TLD) operators, registrars, and resellers.

# FY22 Plans for Technology WG

#	Task	Description
T1	Identify technology stacks for UA testing	Research, identify, and prioritize technology stacks for UA testing.
T2	Demonstrate how to program for UA	Develop, test, and publish functional minimal running prototypes to demonstrate UA-readiness on the prioritized technology stacks. The purpose is to demonstrate UA-readiness to developers to persuade them to adopt this practice.
T3	Conduct technology remediation	Develop remediation strategy and undertake remediation of technology prioritized.
T4	Prioritize and develop training materials	Develop training materials for different platforms, including programming languages, content management systems, etc.
T5	Identify the big picture UA challenges as of 2022 and issue recommendations for the UASG	Conduct a survey or some other form of community consultation.

# FY22 Plans for EAI WG

#	Task	Description
E0	Finalize self-certification guide for EAI	Ongoing from FY21. Must ensure that the terminology of support levels is identical to E3 and useful for both suppliers and user/buyers.
E1	Make it easier to experiment with a self-hosted working EAI system	Provide system admins/mail providers with technical working EAI setup(s), configuration(s) and test(s) for self-hosting. This may include but is not limited to scripts and instructions for locating and/or downloading resources.
E2.1	Identify reference customers to showcase adoption of globally inclusive email, and document the experience	Ask mail service providers to suggest reference customers. Identify reference customers to showcase adoption of globally inclusive email and document the experience. Work with UA Comms WG to develop and publish the customer stories
E2.2	Identify reference mail service providers to showcase for adoption of globally inclusive email, and document the experience	Work with the service providers of the customers. Work with UA Comms WG to develop and publish the provider stories.



# FY22 Plans for EAI WG

#	Task	Description
E3	Make it easy for individuals to experience the use of globally inclusive email addresses	Create a new user centric documentation about how to find a service provider and use/test that provider's services. Publish it on the UASG website and utilize UASG social media channels.
E4	Establish a regular line of communication with UASG working groups supporting their actions	Schedule recurring calls between working groups to improve coordination with UASG's communications, technology, and measurement working groups. Support their actions by bringing in questions/resources that this group is best suited to answer.
E5.1	Improve support of globally inclusive email addresses by engaging market share leaders, not limited to email service providers	Identify the market leaders (special emphasis on Facebook, eBay, etc.) whom the UASG would like to meet, list them by priority, and work with ICANN org and Board to get those market leaders to hold meetings.
E5.2		As ICANN has succeeded in scheduling meetings with market leaders, prepare for and hold those meetings. Do follow-up actions and report on the results.



# FY22 Plans for Measurement WG

#	Task	Description
M1	Prepare and publish UA- Readiness Annual Report	
M2	Gap analysis of various technologies, including Content Management Systems, Social Media Applications, Browsers, Ecommerce Platforms, Websites, etc.	Finish and publish ongoing gap analysis work on social network applications and browsers. Conduct second phase of analysis of content management systems.
M3	Gap analysis of top 1000 websites globally	Conduct another review of the UA support of 1000 websites globally to see how it has improved over past years.
M4	Measure EAI support advertised by the email servers	Survey email servers deployed globally to measure EAI support advertised by them.

# FY22 Plans for Communications WG

#	Task	Description
C1	Develop comms plan	Develop a communications plan for the UASG/UA that will review and study objectives, key audiences, messaging, and communications channels to reach the defined stakeholders.
C2	Content for communications channels: explainer videos	3 explainer videos (e.g., animated format), ~3-5 mins explaining UA/EAI issues and based on training materials. In English with subtitles in the 6 UN official languages.
C3	Organize a strategic comms partner	UASG communications/content development and production (7-10 Blogs, 3-4 Case studies, etc.) and ad-hoc support. Decide on the possibility to create 2-3 materials for mass media editions.
C4	Review UA/EAI content and its dissemination channels	Review of UASG/UA WG activities and projects, their appropriate format, and dissemination channels for relevant stakeholders (e.g., via website, social, UA community, and other channels). Including consideration of possibilities to make regular newsletters.
C5	Translation of relevant reports and case studies	Translations by requests of UA community members (by ICANN).

# FY22 Plans for Communications WG

#	Task	Description
C6	Maintain social media (Twitter) presence of UASG	Publication of UASG content on Twitter (by ICANN comms team)
C7	Maintain UASG.tech website	Hosting and website maintenance
C8	Review and implementation of UASG.tech new website	Website redesign
C9	Reach out and present the UASG/UA community at national, regional IG forums/events	Consider and organize opportunities for UASG speakers to present UA activities/projects at F2F or online local events
C10	UASG Annual Report	Help prepare UASG Annual Report and organize its promotion

# FY22 Plans for Local Initiatives WG

#	Task	Description
L1	Set up Local Initiatives	Support the four existing local initiatives and set up 2-3 new local initiatives. The budget will be distributed across the local initiatives based on the proposals received using the UASG LI charter.

# Next Steps

- \* The UASG continues to engage with stakeholders globally to promote UA- readiness.
  - \* The WGs are meeting regularly to convert the plans into action.
  - \* The Local Initiatives are rolling out plans for FY22.
  - \* UA Ambassadors continue outreach to the community.
- \* As the work on gap analysis progresses, the focus of UASG is increasingly shifting to:
  - \* Remediation of underlying tools.
  - \* Training for the adoption of UA practices in the solutions deployed.
- \* Please support UA by making your own systems UA-ready!

# Thank You!

## Get involved:

- \* Join the UASG community email list:  
<https://uasg.tech/subscribe>
- \* Join a UASG working group:  
[sign-up form](#)
- \* Follow [@UASGTech](#) on social media
  - \* [Twitter](#) | [Facebook](#) | [LinkedIn](#)

## Contact the UASG:

- \* Email: [info@uasg.tech](mailto:info@uasg.tech)

UASG info and recent developments:  
[www.uasg.tech](http://www.uasg.tech)