

UASG ICANN73 Prep Week | 23 February 2022



Session Overview

Universal Acceptance (UA) Overview

- Definition, Vision, Impact
- Universal Acceptance Steering Group (UASG)
- * UASG Working Groups (WGs), Local Initiatives, and UA Ambassadors

Updates from UA Working Groups

- * UA Measurement WG
- * UA Technology WG
- * UA Email Address Internationalization (EAI) WG
- UA Communications WG

Updates from UA Local Initiatives

- * China
- * India
- * CIS-EE
- * Thailand

Updates from UA Ambassadors

* China, India, Nigeria, Turkey

Universal Acceptance (UA)

To address UA, the Universal Acceptance Steering Group (UASG) was organized as a community initiative.

Vision

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

Impact

Promote consumer choice, improve competition, and provide broader access to end users.



Categories Affected and UA-Readiness

Domain Names:

New short top-level ASCII domain names:

New long top-level ASCII domain names:

Internationalized Domain Names (IDNs):

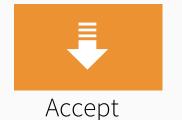
example.sky example.engineering คน ไทย

Email Address:

ASCII@ASCII (new and long TLD):

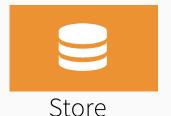
- ASCII@IDN:
- Unicode@ASCII:
- Unicode@IDN:
- Unicode@IDN; right-to-left scripts:

ekrem@misal.istanbul marc@société.org 测试@example.com όνομα@παράδειγμα.ευ اى-ميل@مثال موقع











Display

UASG

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

Main objectives:

Raise awareness of the issue among relevant stakeholders.

Help developers make their systems UA-ready by providing documentation and getting common standards, technology, and tools UA compliant.

Encourage businesses and governments to ask their developers and suppliers to provide UA-ready solutions for the benefit of end users.

Measure progress on UA-readiness.



UASG Working Groups

UASG WG	Role
Technology WG	Oversees remediation work on standards, programming languages, tools, and development platforms.
Email Address Internationalization (EAI) WG	Oversees engagement with email software and service providers to make them EAI-ready.
Measurements WG	Identify UA-readiness gaps in tools and technologies.
Communications WG	Develop communication strategy and oversees its execution in collaboration with other working groups.
Local Initiatives WG	Conduct national and regional UA awareness, training, and stakeholder engagements.
UA Ambassadors	Organize training and outreach at national and regional levels.



Universal Acceptance Local Initiatives

Aim is to interact with local stakeholders to promote UA-readiness through:

- Local community outreach and engagement
- Technical training

Active Local Initiatives

- China
- Commonwealth of Independent States and Eastern Europe (CIS-EE):
 Armenia, Belarus, Georgia, Latvia, Russia, Serbia, Ukraine
- India
- Thailand

Help us establish new UA Local Initiatives :

Use the Local Initiative Charter and proposal template available on uasg.tech.

Please contact us at info@uasg.tech if you are interested in starting one in your country or region.



Universal Acceptance Ambassador Program

 The UASG Ambassador Program was created in 2018 to recruit industry leaders and UA experts who are committed to raising awareness around UA and EAI.

Current UA Ambassadors

- Cengiz Acartürk Turkey
- Malick Alassane Benin
- Harish Chowdhary India
- Aman Masjide India
- Vijay Shekhar Sharma India
- Sushanta Sinha India
- Mark Elkins South Africa
- Abdalmonem Galila Egypt
- Abdulkarim Ayopo Oloyede Nigeria
- Zhijiang Liu China
- Xiucheng Wu (Marvin Woo) China
- Yangyi Wu (Walter Wu) China



Updates from UA Working Groups (WGs)



UA Measurement WG



UA Measurement WG

 The UA Measurement WG plans, oversees, and directs the gap analysis efforts of the UASG for various frameworks and technologies and reports on UA-readiness progress.

Published:

- UA-Readiness of Browsers (UASG036)
- UA-Readiness of Social Media Platforms (UASG035)
- UA-Readiness of Content Management Systems (UASG032)

New Projects:

- UA-Readiness of Identity Platforms
- UA-Readiness of Popular Webhosting Tools



Evaluation of Content Management Systems (CMS)

The UA-readiness of Content Management Systems, namely WordPress and its associated plugins under multiple extensions, were tested with various categories of email addresses and domain names.

Observations:

- * **Domain Names:** In most cases, IDNs generally worked well for end-to-end, but failed some tests (e.g., the A-label is stored instead of U-label in the database).
- * **Emails:** While various categories of ASCII email addresses work well in WordPress, it is not EAI compatible.



Content Management Systems – Wordpress – Domains

Extension	Plugin Name	IDN UA Readiness
CMS	WordPress Instance	B-Level
	MailChimp	B-Level
Extension 1	Mailster	C-Level
Subscription	OptinMonster	B-Level
Management	Newsletter	B-Level
	Sumo List Builder	C-Level
	MemberPress	B-Level
Extension 2	WooCommerce	B-Level
Membership	Restrict Content Pro	B-Level
Management	Paid Memberships Pro	B-Level
	S2Member	C-Level
	Events Manager	B-Level
Entancian 2	WP Event Manager	C-Level
Extension 3 Event	Event Organiser	B-Level
Management	All - in - One Event Calendar	B-Level
	Event Espresso 4 Decaf	B-Level

Details in UASG032

A-level: All passed

B-Level: End-to-end works, but some tests failed

C-Level: End-to-end testing failed



Content Management Systems - Wordpress - Emails

Details in <u>UASG032</u>

Extension	Plugin Name		10		Categories		
		ascii@ascii.ascii 1	ascii@idn.idn 2	unicode@idn.idn 3	unicode@RTL.RTL 4	ascii@RTL.RTL 5	ascii@punycode.punycode 6
CMS	WordPress Instance	A-Level	A-Level	C-Level	C-Level	A-Level	A-Level
	MailChimp	B-Level	C-Level	C-Level	C-Level	C-Level	C-Level
	Mailster	A-Level	A-Level	C-Level	C-Level	A-Level	A-Level
Extension 1 Subscription	OptinMonster	B-Level	C-Level	C-Level	C-Level	C-Level	C-Level
Management	Newsletter	A-Level	A-Level	C-Level	C-Level	A-Level	A-Level
	Sumo List Builder	B-Level	C-Level	C-Level	C-Level	C-Level	B-Level
Extension 2	MemberPress	A-Level	A-Level	C-Level	C-Level	A-Level	A-Level
Membership	WooCommerce	A-Level	A-Level	C-Level	C-Level	A-Level	C-Level
Management	Restrict Content Pro	A-Level	C-Level	C-Level	C-Level	C-Level	A-Level
	Paid Memberships Pro	A-Level	A-Level	C-Level	C-Level	A-Level	C-Level
	S2Member	A-Level	A-Level	C-Level	C-Level	A-Level	C-Level
	Events Manager	A-Level	C-Level	C-Level	C-Level	C-Level	A-Level
Extension 3	WP Event Manager	A-Level	C-Level	C-Level	C-Level	C-Level	A-Level
Event Management	Event Organiser	A-Level	A-Level	C-Level	C-Level	A-Level	C-Level
Management	All - in - One Event Calendar	A-Level	A-Level	C-Level	C-Level	A-Level	C-Level
	Event Espresso 4 Decaf	A-Level	C-Level	C-Level	C-Level	C-Level	A-Level

Caveats and Conclusions About Browsers

We looked at the UA-readiness of browsers on both desktop and mobile platforms.

The general outlook for the UA-readiness of modern web browsers is largely positive on desktop platforms.

One area of improvement for browser vendors is the handling of bookmarking for IDNs. A number of vendors listed previously stored bookmarks using Punycode conversions which have little or no significance to the reader.



UA-Readiness of Browsers

Light green represents the most successful browsers in terms of UAreadiness.

	360	Amigo Mail	Atom Mail	Ch	rome	Edg	je	Epic	c Privacy Br	o Firefox	Internet Explore
Windows			1st	3rd	t	7th		3rd		6th	
Mac OS				2n	d	5th		6th		3rd	
Linux				2n	d					1st	
Android				3rd	t	6th		2nd		4th	
IOS				2n	d	6th		4th		3rd	
	Opera	Safari	Samsung	Brows	Sogou		UC Bro	wser	Yandex		
Windows	4th				5th		i i		2nd		
Mac OS	4th	4th							1st		
Linux	2nd										
Android	2nd		5th				7th		1st		
IOS	5th	2nd							1st		

Details in **UASG036**

^{*} Yandex and Chrome score highly across all platforms.

UA-Readiness of Browsers: Desktop vs. Mobile Device

	Passed all tests	Failed tests:
Windows	86	66
Mac OS	42	91
Linux	9	48
Android	48	104
IOS	31	102

- * There were more UA difficulties with mobile device environments.
- * Most failures were due to the following tests:
 - * Confirm that the URL display is in the correct format as added.
 - * Confirm that the URL is displayed correctly in the bar.



Evaluation of Social Media Platforms

UA-readiness of social media platforms were tested for:

- * Registration and authentication of email address with chosen social media platform.
- * Changing the user's email address attached to the profile.
- * Posting content with various categories of domain names.
- * The analysis shows very poor support when using non-Latin, non-ASCII email addresses in registration and authentication.
- * Posting content: Strong support for display and navigation of internationalized email addresses and domains across most social media platforms.

UA-Readiness of Social Media Platforms - Registration and Authentication

No social media platform supports registration using a non-ASCII email address. This is shown in the chart as being RED.

Unsurprising due to lack of support and/or adoption of internationalized emails in the email transport systems and clients.

	Baidu Teiba	Dou Yin	Facebook	Facebook Messe	enger Instagr	am Lin	e Linke	din	Odnoklass	niki	QQ (Tencent)
Mac Chrome											
Windows Chrome											
Android App											
OS App											
	QZone	Sina Weibo	Snapchat	Telegram	Tik Tok	Twitter	Vkontakte	Wecha	at V	Vhatsapp	Youtube
Mac Chrome	QZone	Sina Weibo	Snapchat	Telegram	Tik Tok	Twitter	Vkontakte	Wecha	at V	Vhatsapp	Youtube
	QZone	Sina Weibo	Snapchat	Telegram	Tik Tok	Twitter	Vkontakte	Wecha	at V	Vhatsapp	Youtube
Mac Chrome Windows Chrome Android App	QZone	Sina Weibo	Snapchat	Telegram	Tik Tok	Twitter	Vkontakte	Wecha	at V	Vhatsapp	Youtube

Details in **UASG035**

UA-Readiness of Social Media Platforms

- * Tested the posting and messaging of non-ASCII URLs and whether the URLs behaved how the end user would expect (whether they came up as a hyperlink and connected to the correct URL).
- * Telegram scored highest with LinkedIn, Facebook, and Twitter coming in second and third.

Legend

Highest success rate

Second highest success rate

Second highest success rate

		_						
	Facebook	Facebook Messer	Instagram	Line	Linkedin	Odnoklassniki	QQ (Tencent)	Sina Weibo
Mac Chrome								
Windows Chrome								
Android App								
iOS App								
	Snapchat	Telegram	Tik Tok	Twitter	Vkontakte	Wechat	Whatsapp	Youtube
Mac Chrome								
Windows Chrome								-,55
Android App								
iOS App								

Details in UASG035



UA Measurement WG - Ongoing Tasks

- * UA-Readiness of Popular Web Hosting Tools
 - * Develop a method to assess the web hosting tools which ISPs offer their customers.
 - * Three webhosting tools: cPanel and Plesk (commercial), ISPConfig (open-source). All popular in many regions.
- UA-Readiness of Popular Identity Platforms
 - * Develop a test method and evaluate the OAuth standard and design structure that the identity products integrate into.
 - * Two identity platforms that use OAuth' standards will be tested, one of which is commercial (between Okta and Auth0), and the other is open-source (among OpenIAM, Apache Syncope, or Shibboleth Consortium).

UA Technology WG



UA Technology WG – Priorities

- The UA Technology WG focuses on the remediation of existing UA gaps in programming languages, tools, development platforms and standards, as well as the development of technical trainings. The group engages with technology enablers and technology developers as primary stakeholders.
- Ongoing tasks:
 - Identifying the big picture and challenges in adopting UA
 - UA-readiness evaluation of standards and best practices
 - Showcasing programming language solutions with UA-ready code snippets and reporting bugs
 - Remediation of UA gaps for 2,000 websites
- To be published soon:
 - Assessing the UA-readiness of 2,000 websites
 - Remediation of Programming Languages Phase 3



UA Technology WG – Ongoing Tasks

- Identifying the big picture and challenges in adopting UA
 - Objective: To understand from a practical perspective, the impediments and challenges we have faced in closing the UA gap over the past few years. For this, we are trying a two-pronged approach:
 - Consultations with UA experts within the ICANN community.
 - Based on consultations, conduct surveys with developers, managements, and governments.
- UA-readiness evaluation of standards and best practices
 - Objective: Research the different technology standards organizations to identify standards and best practices that directly or indirectly impact the UA-readiness of domain names and email addresses. This project has identified several organizations that we can potentially collaborate with:
 - W3C Internationalization Working Group (i18n): Works on matters related to UA. Closer cooperation could lead to gains for both parties.
 - Python Software Foundation PEPs: A proposal should be made to integrate IDNA module into the core of the Python language, making it UA-ready at its foundation.
 - WHATWG, IETF, Unicode Consortium, etc.



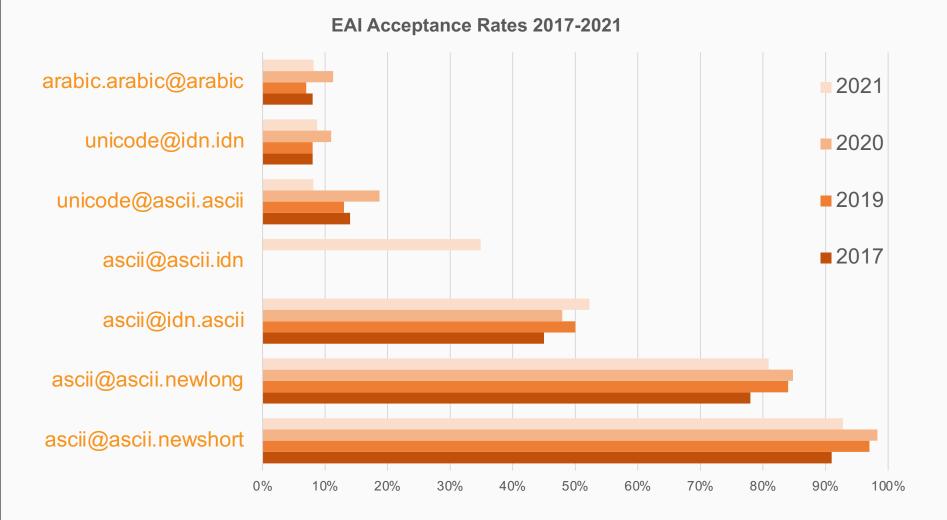
Remediation of Websites

Year	Websites Tested	Scope	Report
2021 Dec	2,010	UA Test and Outreach	To be published on uasg.tech
2020 Apr	1,000	UA Test	UASG027
2019 Aug	1,000	UA Test	UASG025
2017 Sep	750	UA Test	UASG017

- This is the first time we are conducting outreach to website owners to report UA issues so that they can be addressed.
- The feedback to website owners is provided via multiple channels with multiple contacts.
- The follow-up with website owners will continue until June 2022.
- Given that there has been limited progress over time, we are exploring additional interventions.



Email Acceptance of Top Websites Globally





Summary of Programming Language Evaluation – Phase 1 and 2

The work consisted of testing the UA-readiness levels of several programming languages, frameworks, and libraries and comparing the results over time.

- Various categories of domain names and email addresses were tested.
- Most libraries and frameworks from the previous phase were not improved for the purpose of Universal Acceptance.
- * Many of the new tested libraries have partial support, whereas the others provide full support for IDNA2008 and EAI.



Programming Languages and Frameworks

LANGUAGE	LIB NAME	COMPLIANCE (%)	Туре
Javascript	Idna-Uts46	85.5	IDN
Javascript	Nodemailer	84.3	Mail
Javascript	Validator	94.2	Mail
Python3	Django Auth	48.1	Mail
Python3	Email_Validator	86.3	Mail
Python3	Encodings_Idna	67.7	IDN
Python3	<u>Idna</u>	100	IDN
Python3	Smtplib	84.3	Mail
Rust	<u>Idna</u>	87.1	IDN
Rust	Lettre	7.8	Mail

Legend (<u>UASG018A</u>)

UA-ready

UA-ready but developer needs to be careful

Not UA-ready

Programing Languages and Frameworks

LANGUAGE	LIB NAME	COMPLIANCE (%)	Type
С	Libcurl	84.3	Mail
C	Libidn2	95.2	IDN
C#	Mailkit	84.3	Mail
C#	Microsoft	83.9	IDN
Go	Mail	100	Mail
Go	<u>Idna</u>	79	IDN
Go	Smtp	19.6	Mail
Java	Commons-Validator	85.5	Mail, IDN
Java	Guava	77.8	IDN
Java	ICU	93.5	IDN
Java	Jakartamail	82.4	Mail
Java	JRE	71	IDN

Legend (<u>UASG018A</u>)

UA-ready

UA-ready but developer needs to be careful

Not UA-ready

Summary of Programming Language Evaluation - Phase 3

This phase extends the testing of UA-readiness levels of programming languages to include mobile platforms as well.

- * iOS: While native iOS apps (Safari, Mail) demonstrated good compliance with EAI and IDNA2008, Apple doesn't provide libraries with the same level of acceptance for developer tools.
- Android: The base code for HTTP on Android is IDNA2003 compliant only;
 consequently, none of the tested libraries are IDNA2008 compliant.
- * PHP on Windows and Linux: UA compliance is generally good. However, while Microsoft supports IDNA2008 in its core .NET framework, older Windows API that may be used by PHP libraries did not get support for IDNA2008; therefore, those libraries are not UA-compliant.



Programming Languages and Frameworks For Mobile Platforms

LANGUAGE	LIB NAME	PLATFORM
Swift	MessageUl	iOS
Swift	URLSession	iOS
Swift	Alamofire	iOS
Swift	IDNA-Cocoa	iOS
Kotlin	okHttp	Android
Kotlin	HttpUrlConnection	Android
Kotlin	Retrofit	Android
Kotlin	fuel	Android
Kotlin	Volley	Android
Kotlin	Apache HttpClient	Android
Kotlin	Jakarta Mail	Android
Kotlin	Email Intent	Android

Legend

UA-ready

UA-ready but developer needs to be careful

Not UA-ready

Programming Languages and Frameworks

LANGUAGE	LIB I	NAME	Platform
PHP	cURL*		Windows
РПР	CURL"		Linux
PHP	mail		Windows
PHP	emailValidato	or	Windows & Linux
PHP	Guzzle		Windows & Linux
PHP	intl		Windows & Linux
PHP	PHPMailer		Windows & Linux
		Http-client	Windows & Linux
PHP	Symfony	Polyfill-intl- idn	Windows & Linux
		Mailer	Windows & Linux

Legend

UA-ready

UA-ready but developer needs to be careful

Not UA-ready



Remediation of Programming Languages

As part of Phase 3 testing:

- * 15 bug reports
- * 4 code fixes have been submitted
 - * 3 merged upstream by the maintainers
 - * 1 pending to be merged upstream
- * Provided code examples demonstrating how to properly support UA in the form of a patch in a pull request.
- * Providing code patches significantly increases the likelihood of a fix to be included in the source code.
- * Demonstration of both technical competency on the issue (i.e., UA) and on the software being patched provides a greater chance of being answered.



Remediation of Programming Languages

Language	Platform	Library	Resolution
Swift	iOS	MessageUI	No answer yet
Swift	iOS	URLSession & Alamofire	Being discussed and maintainer assigned to the issue
PHP	Windows	mail	This does not claim to support RFC6531, this would be a new feature
PHP	Windows	cURL	This is a Windows issue
PHP	Windows & Linux	intl	This is an ICU issue
PHP	Windows & Linux	PHP Mailer	Fix submitted and merged upstream
PHP	Windows & Linux	Symfony HttpClient	Fix submitted and merged upstream
PHP	Windows & Linux	Symfony Mailer	 3 different bug reports: Fix submitted and merged upstream Being discussed No answer yet
Kotlin	Android	Jakarta Mail	No answer yet
Kotlin	Android	HttpUrlConnection	Transmitted to the engineering teams
Kotlin	Android	OkHttp	Closed after Q&A as IDNA 2008 is not uniformly supported or implemented by clients and servers
Kotlin	Android	Fuel	Fix submitted and pending to be merged upstream
Kotlin	Android	Apache HttpClient	No answer yet

UA Email Address Internationalization (EAI) WG



UA EAI WG

- Email Address Internationalization (EAI) is a process that enables email addresses with either the domain name or mailbox name in different languages and scripts to work properly when sending and receiving emails. (RFC6530-RFC6533)
- The EAI WG does not focus on specific languages and writing scripts.
- The EAI working group focuses on the identification of relevant technology and gaps in supporting EAI, remediation of technology, and provision of training materials for email software and service providers to promote EAI support and deployment.
- Ongoing work:
 - EAI-Readiness Self-Certification Guide
 - UA education outreach to the developer community using technical Q&A sites
- Published:
 - EAI Software Test Results (email software packages including spam filters)



UA-Readiness of Deployed Mail Servers

To measure how widely internationalized email addresses are accepted, quarterly surveys of email servers across domains registered in hundreds of TLDs are being conducted.

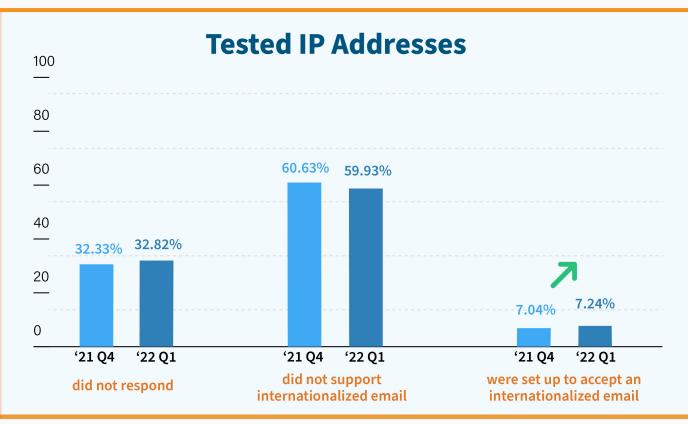
1,180 TLD zones



210,811,274 second level domains

34,996,159 unique mail servers

2,537,159 unique IP addresses



Test your email server for EAI support: https://uasg.tech/eai-check/

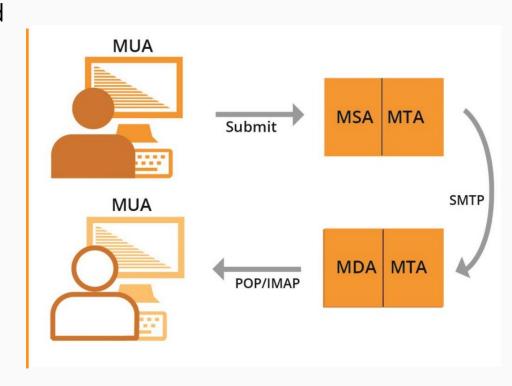


Scope for UA-Readiness: Email Specific Systems

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

UA-Readiness: Email Specific Systems

Details in **UASG030A**

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	L2					
Mozilla Thunderbird	Few					
MS Outlook	Most L1					
MS Exchange Server (hosted)		All L1	All L1	Few		
<u>`</u>				rew		
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*		



UA-Readiness of Spam Filters

- UA-readiness test determined how well the chosen software packages and spam filters support internationalized email.
- While EAI support is improving every year, there is still plenty of work to do.

Details in <u>UASG030A</u>

Spam Filters	EAI Support
Spamassassin 3.4.5	All L2
Mailchannels	Part L1
Spamjadoo (Xgenplus)	All L2

- 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



Ongoing Tasks: EAI-Readiness Self-Certification Guide

- * Objective: To make mail service providers, software vendors, and developers aware of the functionalities required to self-certify the readiness of their email systems, tools, and utilities for Email Address Internationalization (EAI).
- * The guide provides scores (silver, gold, platinum) for individual features and could be the basis of the logo program.
- * It provides IT and procurement managers the necessary information about EAI-readiness levels that may help them in selecting or purchasing email services and tools. A quick guide for IT and procurement managers is also planned.

Ongoing Tasks: EAI-Readiness Levels

Level	Functionality
Platinum	 Meets all Gold requirements + Supports all UASG best practices guidelines Hosting functionality for EAI mailboxes is enabled by default Extra features improving user experience Documentation about how to set up, use, and administer Platinum-level features
Gold	 Meets all Silver requirements + Hosting functionality for EAI mailboxes is [available but] not enabled [by default] Marketing materials and public messaging promote EAI systems and features Documentation clearly explains how to set up and use Gold-level features Functionality which processes email addresses but does not process email messages, for example address books, can create and store Unicode email addresses
Silver	 Email tool or system, as an example a Mail Submission Agent (MSA), Mail Transfer Agent (MTA), Mail Delivery Agent (MDA), or Mail Service Provider (MSP), enables its users to process email messages from EAI mailboxes but does not host such mailboxes. Mail User Agent (MUA) "displays" messages from EAI mailboxes Servers can send to and receive from EAI mailboxes Functionality which processes email addresses but does not process email messages (e.g., address books), but cannot create or store Unicode email addresses

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Technical Requirements Evaluation Criteria - Example

EAI-Ready Mail User Agent (MUA) and EAI-Ready Webmail clients

Item	Function	Status/Level of Support	Description
MUA.1	EAI addresses can be saved to address book	MUST have for GOLD or higher	If the software supports or includes an "address book" (a mechanism through which contact details can be saved and later recalled), the feature should allow EAI addresses to be saved. The details of how the address is stored are unimportant for this test case, only that it can be done.
MUA.2	EAI addresses in address book display address local part as Unicode	MUST have for GOLD or higher	If the software allows viewing items in the address book, it should display the local parts of EAI addresses in Unicode form.
MUA.3	EAI addresses in address book display address domain part as Unicode	MUST have for GOLD or higher	If the software allows viewing items in the address book, it should display the domain parts of EAI addresses in U-label form.
MUA.4	EAI addresses recalled from address book display address local part as Unicode	MUST have for GOLD or higher	If the software allows destination address fields to be populated from the address book (typically through an autocompletion or search feature in the composition interface), the local part of EAI addresses inserted into destination address fields should be displayed as Unicode. This applies to the "To", "Cc", and "Bcc" fields.

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Ongoing Tasks – Technical Engagement

EAI technical education and awareness to the developer community via Q&A websites (e.g., StackOverflow, Serverfault, GitHub, etc.)

- * The objective is to engage with developer communities by promoting UA and EAI issues and responding to existing EAI questions (e.g., explaining problems and how to solve them).
- * Raise the level of UA and EAI awareness on developer forums.
- * Typical questions raised are about IDN and EAI validation methods, character sets, length limitations, and configurations in applications.



UA Communications WG



UA Communications WG

- The Communications Working Group develops the communication strategy for the UASG and oversees its execution in collaboration with other WGs.
- Engage in global and regional IGFs and schools of Internet governance.
- Completed works:
 - UA awareness of global and regional events
 - UASG newsletter
 - Uasg.tech website redesign
 - Paid social media campaign
- Ongoing work:
 - UA explainer videos
 - Outreach to 20 big tech companies
 - Revamping uasg.tech to improve its ranking and make content SEOoriented.



Ongoing Tasks

Statement of Work (SOW) for three explainer videos:

- 1. Introduction to UA and why it is important
- 2. Configuring email systems to support EAI
- 3. How to make UA-ready applications
- * Each will be 3-5 minutes in length and in English with subtitles in six UN official languages.
- * Objective: To develop and produce videos to explain UA issues in a short, meaningful, educational, and engaging way that is based on UASG training materials.



Regional UA Training Series

* North America UA Training Program

Date	Session	Audience	Description
20 January 2022 12:00 PM EST 17:00 PM UTC	Introduction to UA	General	An introduction to the fundamentals of UA and EAI.
27 January 2022 12:00 PM EST 17:00 PM UTC	EAI Configuration	Technical (email and system administrators)	A detailed training on how to configure email systems to support EAI.
3 February 2022 12:00 PM EST 17:00 PM UTC	UA for Java Software and Application Developers	Technical (software and application developers)	A detailed training on how to design and develop applications and systems to support UA.
10 February 2022 12:00 PM EST 17:00 PM UTC	Outreach and Engagement: The Life of a UA Ambassador	General	A session to discuss how participants can stay involved in UA efforts across the NA region.

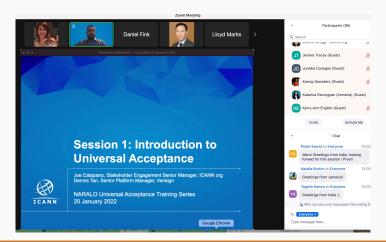
Let us know if you would like to volunteer as a UA technical trainer:

info@uasg.tech

Details on the Regional UA Training Page

* Africa UA Training Program

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Date	Session	Audience	Description
Tuesday, 14 December 2021 12:30- 14:00 UTC	Email Address Internationalization (EAI) Configuration	Technical (systems)	A detailed training on how to configure email systems to support Email Address Internationalization (EAI).
Tuesday, 18 January 2022 12:30- 14:00 UTC	Programming (in Java) to Support Universal Acceptance	Technical (programmers)	A detailed training on how to design and develop applications and systems to support UA.
Tuesday, 15 February 2022 12:30- 14:00 UTC	Universal Acceptance: Its Impact and Next Steps To register, click here	ccTLD managers, local regulators, tech, and business	A discussion on how UA issues impact African communities, how best to address these issues, and the business opportunities presented by being UA-ready.





Regional UA Training (December 2021-February 2022)

- Regional UA Training series (AFTLD, NARALO)
 - * Introduction to UA
 - * EAI Configuration
 - * Programming in Java to Support Universal Acceptance
 - * The Life of a UA Ambassador
 - * The Impact of Universal Acceptance and Next Steps
- * Interactive discussions, Q&A , quiz
- * Average time for each training: 90-120 min
- Featured over 300 participants
- * Certificates given to the participants
- * Online recordings and materials are available

Internet Governance Forum (IGF) 2021 - Poland

Universal Acceptance for Wider Access through Collaboration

- * Key takeaways:
 - * Websites using domain names in local languages for small and medium enterprises see higher traffic of end users.
 - * Research should be done using technology adoption model to address UA along with integrating its training in technical coursework and community services.
 - * Governments can play a key role in UA adoption by incentivizing its adoption by the community.
 - * Technology companies should start their journey toward UA adoption one step at a time instead of waiting.
 - * We should celebrate the significant success we have already had in UA adoption as we encourage its additional support.



UA Awareness and Outreach

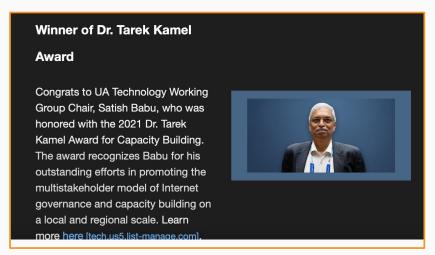
- * UA Webinar Series "Demystifying Universal Acceptance: What does a multilingual Internet look like?" Africa Four sessions between June and September 2021.
- * Armenian Internet Governance Forum Updates on . հայ IDN and Universal Acceptance - October 2021
- Webinar on "Introduction to UA" for potential Local Initiatives (Iraq, Tunisia)
 November 2021
- * Arab IGF 2021 Digital Cooperation and Development Forum Making the Internet More Acceptable Universally "Maintaining One Single Global Internet" December 2021
- * Bhashantara 2021 India UA the foundation of Multilingual and Inclusive Internet December 2021
- * APTLD81 Universal Acceptance Session Dubai, UAE 24 February 2022

Monthly UASG Newsletter

Extensive coverage on the following topics:

- * UASG highlights
- * UASG in the news
- * UASG social media
- * UASG at ICANN meetings
- * UASG events, workshops

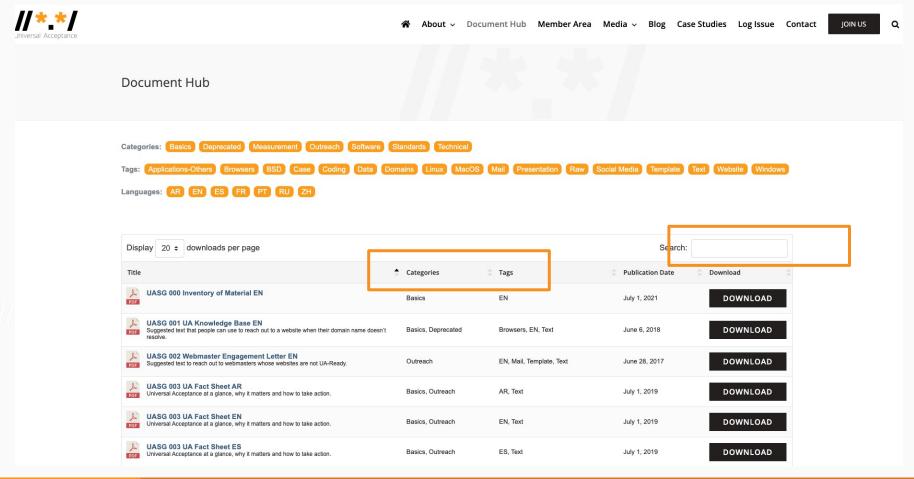






Redesign of the UASG.TECH Website

- Document hub created with explicit search functionality
- * Shortlist all the documents based on categories and tags





Paid Social Media Campaign

The UASG carried out a paid social media campaign from 5-12 January 2022.

The campaign was aimed at Python developers to raise UA awareness and direct them to remediation resource <u>UASG033</u>.





Campaign Results

Successful Social Media Campaign

- Over 460,000 total impressions/reach
- 21,316 total link clicks on Facebook and Twitter posts (UASG 033)

Successful in increasing website traffic to uasg.tech

- 9,678 pageviews, 7,734 of which were on the UASG033 download page
- A total of 4,505 visitors, 4,483 of whom were new users
- 3,817 users visited the UASG033 download page





UASG on Social Media

Contact us if you would like to collaborate.

Follow the UASG on its social channels:



https://twitter.com/UASGTech



https://www.facebook.com/uasgtech/



https://www.linkedin.com/company/uasgtech/



https://www.youtube.com/channel/ UCsZQcTPv4Q2TRdx4w7V1ouw



UA Local Initiatives



China UA Local Initiative

Led by Internet Society of China



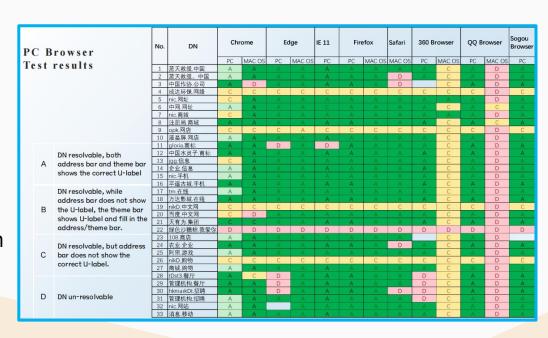
China UA Local Initiative



Co-organized the 4th Chinese Domain Name Innovation and Application Forum



Shared showcases of Chinese IDN promotion at the 2021 IGF



Released the UA Test Report on Browsers (PC/Mobile) Supporting Chinese Domain Names

China UA Local Initiative



(Media Source: peopledaily.com.cn)

Effort of government and media outreach: "Promoting Chinese Domain Names
Application" written into the 14th Five Years
Development Plan on Information and
Communications Industry by the Ministry of Industry and Information Technology of P.R. China

Other Outreach and Engagement Progress

- Sogou's mobile browser already supported Chinese IDNs
- Qihoo 360 browser (personal and business version) passed the Chinese IDN testing
- Baidu Search: improved support of Chinese IDNs, over 4 million Chinese IDNs included in system
- Qihoo 360 search: Over 317,640 Chinese IDNs included

2022 Work Plan:

- Outreach with more Internet applications supporting UA, such as social media, phonetic entry method
- Follow up with Tencent, NetEase and outreach with Sina, Sohu for FAI
- ➤ Launch training/education courses
- Conduct new UA test report



CIS-EE UA Local Initiative

Commonwealth of Independent States and Eastern Europe Local Initiative (Armenia, Belarus, Georgia, Latvia, Russia, Serbia, Ukraine)

Led by the Coordination Center for TLD .RU/.РФ



CIS-EE UA Local Initiative

2021 Outreach - Key Local Activities

UA Technical Workshops



UA workshop for Python developers Recordings on <u>Поддерживаю.рф</u> (Russia)

UA Hackathons



WHOIS Hackathon

Mobile phone apps for WHOIS and DNS data, incl. IDNs. (Serbia)



2021 Outreach - Key Local Activities

IDN Promotion Campaigns



Round table on development of ". hայ" Armenian IDN ccTLD



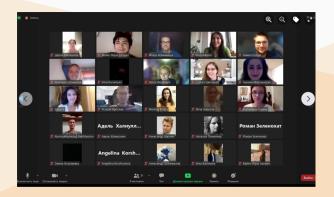
IDN contest for registrars Held in Armenia

UA at National IGFs



UA session at Armenian IGF

UA at IG Summer Schools



UA workshop at IG Summer School Held in Russia

2021-2022 Research and Guidelines

- Guidelines on implementing support for non-ASCII domain names and emails in software (based on standards and best practices).
- Proposals on including IDN/EAI requirements into contractual and tender documents for procurement of a software.
- UA-readiness reports: IDN Survey 2021 (among ccTLD registries), IDN/EAI support evaluation of social online resources in Russia.

2022 ongoing projects

- UA technical workshops and UA sessions at regional events.
- UA materials for including into curriculum courses.
- Analysis of current user experiences while using IDNs and EAI and how to improve it (by Russian UA WG).

India UA Local Initiative

Led by The Federation of Indian Chambers of Commerce & Industry (FICCI)



FICCI-ILIA and UA Local Initiative Activities

Working Group Meetings of FICCI-ILIA India UA Local Initiative

 Several virtual meetings were organised and attended by stakeholders before key activities.

UA and EAI Technical Workshops

- Technical workshops were organized, and training was given to industry members.
- Focus areas: UA overview, implementation and EAI, how UA-readiness can help organizations expand their horizons.

UA Overview and Importance of a Multilingual internet

- Sessions were organized on UA awareness and implementation benefits.
- Further discussions revolved around challenges and opportunities in the implementation of IDNs and its role in the development and expansion of Indic Internet, as well as how it can further add to the Internet economy as a whole.
- Additionally, a session was held on Universal Acceptance and the foundation of a multilingual and inclusive Internet.
 - Attended by 400 live participants and was addressed by government officials, industry leaders, and subject matter experts.

FICCI-ILIA and UA Local Initiative Activities

Promotional Tweets about Universal Acceptance and IDNs and UA Article

- Several official tweets were released by FICCI-ILIA and participating speakers promoting UA during Bhashantara.
- One authored article was also released.

India IGF UA and IDN Sessions

- A total of 3 sessions were organized at the pre-India IGF:
 - The importance of UA readiness and multilingual Internet as a socio-economic tool of empowerment
 - The Changing Landscape of Indic-Internet and Importance of Universal Acceptance
 - The Value of Multilingual Internet in Today's Fast Pace Digital World
- Session on "Multilingual Internet The Foundation of Next Phase of Digital Transformation" organized during India IGF 2021
- The session aimed to promote UA among key stakeholders, academia, and tech developers

Partnership with NIXI and Community

- Local India UA Chapter has become an official member of UA committee at NIXI
- UA is an integral part of MeitY's agenda of development of multilingual Internet
- Local India UA Chapter has also partnered with various community members to deliver various activities



FICCI-ILIA and UA Local Initiative Activities













Thailand UA Local Initiative

Led by Thai Network Information Center Foundation (THNIC)



Thailand UA Local Initiative

THNIC Key Activities and Achievements

2021

- Online Workshop: Setting up an Email Server with EAI Support on CentOS8
 - 34 participants actively attended and practiced in the workshop, including 2 from Lao National Internet Center (LANIC).
- UA Github Pull Request Hackathon to make open-source project UA-ready
 - A total of 38 pull requests, one request was accepted for merging to the base repository.
- WebPresso: Create Business Digital Identity
 - With 60 interested participants, THNIC Foundation explained the benefits of creating websites and using Thai domain names and emails as another method for businesses to help build trust and digital identity.





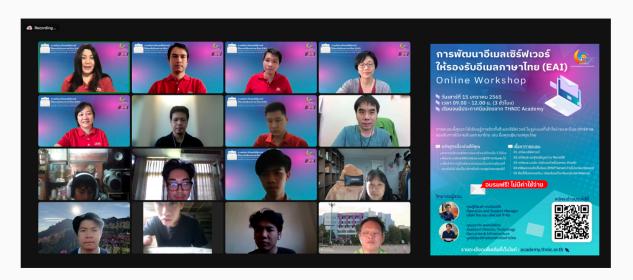
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Thailand UA Local Initiative

THNIC Key Activities and Achievements

2022

- Online Workshop: Setting up an Email Server with EAI Support on Ubuntu 20
 - The Email Server with EAI Support workshop taught 76 participants to set up an email server on the Ubuntu operating system and configure parameters to support EAI.
- Online Workshop: Developed UA-Readiness with PHPMailer (2 April 2022)
- Develop curriculum self-paced online training courses + labs (June 2022)
- UA Github Pull Request Hackathon to make open-source project UA-ready (September 2022)





UA Ambassadors



Marvin Woo, China UA Ambassador

- UA Case Study about Coremail
 - Coremail reconstructed its email system, Coremail XT 5.0, by adjusting its system to support UTF-8.
 - Updated and maintained the EAI email platform.

Participated in IDN endorsement activities.

Recommended EAI on SaaS forum.









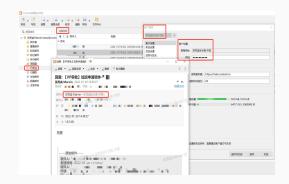
Marvin Woo, China UA Ambassador

- EAI was introduced at the Fintech forum and approved by ICBC, which is preparing to use it.
 - ICBC—The world's largest bank: Industrial and Commercial Bank of China.
- Participated in organizing the Innovation Competition for college students in Guangdong, Hong Kong, Macao, and Taiwan, and recommended IDN/EAI.
- Use EAI for work emails.











Zhijiang Liu, China UA Ambassador

- Plan and preside over The Fourth Forum for Creative Application of Chinese Domain Names.
- Assist the Internet Society of China to conduct the Test Report for Chinese Domain Name Universal Acceptance in Browser.
- Actively participate in offline activities and promote the Chinese domain name demonstration project.
- Online publicity and popularization of Chinese domain names through new media such as short videos.
- Actively participate in the work of CDNI.





Aman Masjide- India UA Ambassador



- * Conducted an exhaustive study covering over 700 top websites across various categories and top 10 social media platforms. Reports regarding these studies will be published on uasg.tech.
- * Worked on strategies to connect with website operators and platform owners to report UA-related gaps.
- * Participated in various panel discussions as a speaker conducted by FICCI-ILIA and WSIS Forum [cctld.ru].
- * Published a thought guest article titled "Universal Acceptance Making the Internet work for everyone":
 - http://domainincite.com/26458-universal-acceptance-making-the-internet-work-for-everyone-guest-post [domainincite.com]

Harish Chowdhary - India UA Ambassador

- Asian, Australasian and Pacific Islands Regional At-Large Organization
 (APRALO): Shared views on UA and its advantages during monthly call in January
 2022.
- Multilingual Internet Workshop: Conducted and presented at the Workshop on Multilingual Internet under the aegis of Ministry of Electronics & IT, Government of India on 4 December 2021.
- Chief guest: Shri Rajiv Chandrasekhar, Minister of State, Ministry of Electronics & IT, Government of India. During the workshop representatives from the following stakeholder groups were present:
 - Academia (IIT)
 - Government representatives (MeitY, NIC,CDAC,NIXI)
 - India ICT industry representatives (Microsoft, Google, Mozilla, Xgen, Mozilla, Rediff, Zoho)
 - Industry associations (FICCI and IAMAI)
 - Research community representatives (CDAC,IIT)
- Played an instrumental role in enabling https://एमईआईटीवाई.सरकार.भारत/ (https://एनआईसी.भारत/ (https://www.meity.gov.in/)
- Mentoring teams of DNS project competition: Joint Initiative of NASSCOM CoE IoT, AI, and ICANN.
- Future activities on UA awareness: Planning a series of webinar and code sessions for stakeholders in India with UA India Local Initiative.

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Dr Abdulkarim Oloyede - Nigeria UA Ambassador

February 2021: Public lecture with The Nigerian Society of Engineers (Ilorin Branch). Topic: Connecting the Unconnected: The Role of Universal Acceptance.

March 2021: Seminar for post graduate students, University of Ilorin, Nigeria. Topic: The role of Engineers In Universal Acceptance



April 2021: Lecture for Nigerian Communication Commission (NCC)

May 2021: Seminar/public lecture for students, University of Abuja, Nigeria. Topic: The role of Engineers In Universal Acceptance

July 2021: Lecture at the Ghana School of Internet Governance. Topic: What is IDN?

October 2021: Discussant at the West Africa School of Internet Governance. Topic: Universal Acceptance

December 2021: Presentation on UA and IDN during the Annual Conference of Nigerian Society of Engineers

Asst. Prof. Cengiz Acartürk – Turkey UA Ambassador



UA Local Initiative in Turkey

- The core team set up in 2020.
- Goal: To establish a Local Initiative in Turkey.
 - Team members: Sezen Yeşil, Seher Sağıroğlu Ayhan, Kadir Erdoğan, Onur Koşar, Uğur Adıyaman, Uğur Dökmeci, Cengiz Acartürk
 - Continued regular meetings (monthly) online.
- EAI tests conducted between the computer center of the base university and a state institution.
 - PostFix and Microsoft Exchange Server configuration for adopting Turkish characters.
 - Plan for future work such as spam filter and antivirus filter localization.
 - Deliverable: A technical report of the tests (in Turkish).

Cengiz Acartürk – Turkey UA Ambassador

UA Local Initiative in Turkey

- Initial draft prepared for the application for Local Initiative Chapter in Turkey (in progress). Two aspects under discussion:
 - Administrative aspects: local regulations, laws
 - Societal aspect: which components of UA needed first (EAI, IDN, software)
- Initial contact with ISOC Turkey
- Plans
 - Plans for conducting Technology Model Acceptance studies to understand perception of UA by society.
 - Expansion of the core team by new members.
 - Organization of webinars (in collaboration with ISOC) for increasing UA awareness in Turkey.





Follow, share, like, and engage with the UASG on social media, and use the UASG hashtag in relevant posts: #Internet4All

Twitter: <u>@UASGTech</u>

LinkedIn: https://www.linkedin.com/company/uasgtech/

Facebook: https://www.facebook.com/uasgtech/

Join the UA Discuss email alias: <u>ua-discuss@icann.org</u>

Report a problem if you find an application or webpage that is not UA-

ready: https://uasg.tech/global-support-center/



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