

# Universal Acceptance (UA)-Readiness Survey Report - ccTLDs

ICANN org

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# 1. Executive Summary

Universal Acceptance (UA) is cornerstone to a digitally inclusive and multilingual Internet, ensuring all valid domain names and email addresses – regardless of language, script, or character length (e.g., .在线, .photography, .᠋᠋᠋, .hwj) – are accepted equally by all Internet-enabled applications, devices, and systems.

From December 2022 through January 2023, ICANN organization (org) reached out to country code top-level domain TLD (ccTLD) managers to participate in a UA-readiness survey. The objectives were to understand the progress and the challenges faced by ccTLDs in becoming UA-ready, and how ICANN org can help support them.

ICANN org requested that if a ccTLD manager manages more than one ccTLD, e.g., both ASCII ccTLD and Internationalized Domain Name (IDN) ccTLD, they should provide a response for each ccTLD. The org received feedback from 63 ccTLD managers representing 75 ccTLDs, which is 25 percent of the total number of ccTLDs delegated (309)<sup>1</sup>. Of these 309 ccTLDs, there are 248 ASCII ccTLDs and 61 ccTLDs. The respondents represent a cross-section geographically as shown in Table 1.

*Table 1: Geographical Distribution of Survey Responses*

Geographic Region <sup>2</sup>	ASCII ccTLD Response	IDN ccTLD Response	Total Response
AF: Africa	4 (7%)	2 (33%)	6 (10%)
AP: Asia / Australia / Pacific	24 (33%)	11 (24%)	35 (29%)
EUR: Europe	22 (29%)	4 (44%)	26 (30%)
LAC: Latin America / Caribbean	5 (14%)	-	5 (14%)
NA: North America	3 (38%)	-	3 (38%)
<b>Total</b>	<b>58 (23%)</b>	<b>17 (28%)</b>	<b>75 (24%)</b>

Most of the ccTLD managers who responded to the survey are UA-ready or partially UA-ready (69%). The main motivation to become UA-ready was to gain more customers, respond to customer needs, and support local language communities.

Training by ICANN org is generally required. Train-the-trainer program was suggested to build more local trainers.

Around 35% of ccTLD managers also actively promote UA updates via local events, including collaborating with other ccTLDs via regional and global platforms.

<sup>1</sup> <https://data.iana.org/TLD/tlds-alpha-by-domain.txt> (accessed 10 March 2023)

<sup>2</sup> Based on ICANN Geographic Regions <https://meetings.icann.org/en/regions>

The survey results will be considered by ICANN org when updating its UA strategy. This survey report will be shared with relevant UA working groups relevant to ccTLDs.

## 2. UA-Readiness Status (ccTLDs)

Many ccTLDs offer IDNs registration at the second level, so at the beginning of the survey they were asked about the IDN registration trend and causes. The responses to these questions are not included in the UA-Readiness Status section, but are available in Appendix B.

At the beginning of the survey, respondents were asked to select their level of UA-readiness by choosing “Yes”, “Yes-partially”, or “No” based on the following definition:

**UA-readiness means** all software applications (including, for example, email and webforms) accept, validate, process, store, and display correctly and consistently for all valid domain names and email addresses (using short or long new gTLDs and IDNs).

For example:

- [universal-acceptance-test.icu](#) - a domain name under a new short gTLD
- [universal-acceptance-test.international](#) - a domain name under a long gTLD
- [ยูเอทคสอบ.ไทย](#) - an Internationalized Domain Name (IDN)
- อีเมลทคสอบ@ยูเอทคสอบ.ไทย - an internationalized email address (Email Address Internationalization)

The [UA Roadmap for Domain Registry and Registrar Systems](#) provides further details.

Based on the definition of UA-readiness above:

- 10 (13%) respondents are UA-ready,
- 42 (56%) are partially UA-ready, and
- 23 (31%) are not UA-ready.

Figure 1a shows the distribution of UA-readiness for all respondents. Figure 1b shows distribution of UA-readiness for the APAC and Europe regions where there are more than 25% responses from the region. The distribution for North America is not included because there are a small number of ccTLDs in the region (8 total).

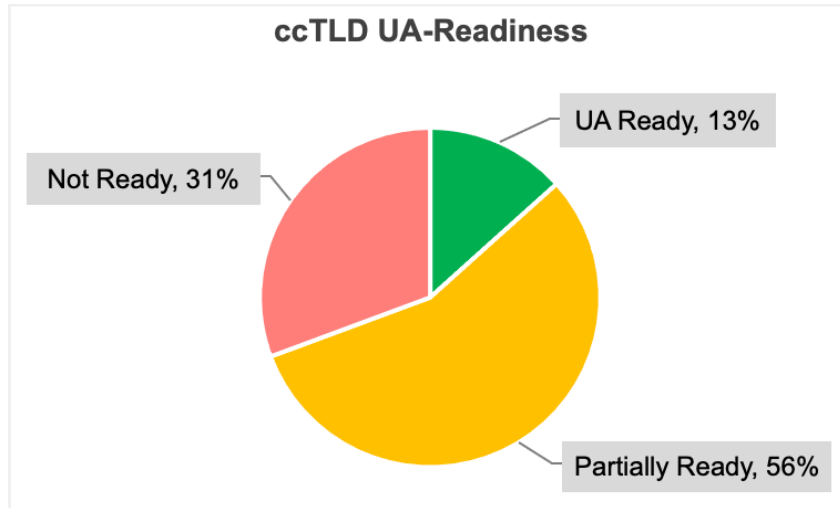


Figure 1a: ccTLD UA-Readiness (All)

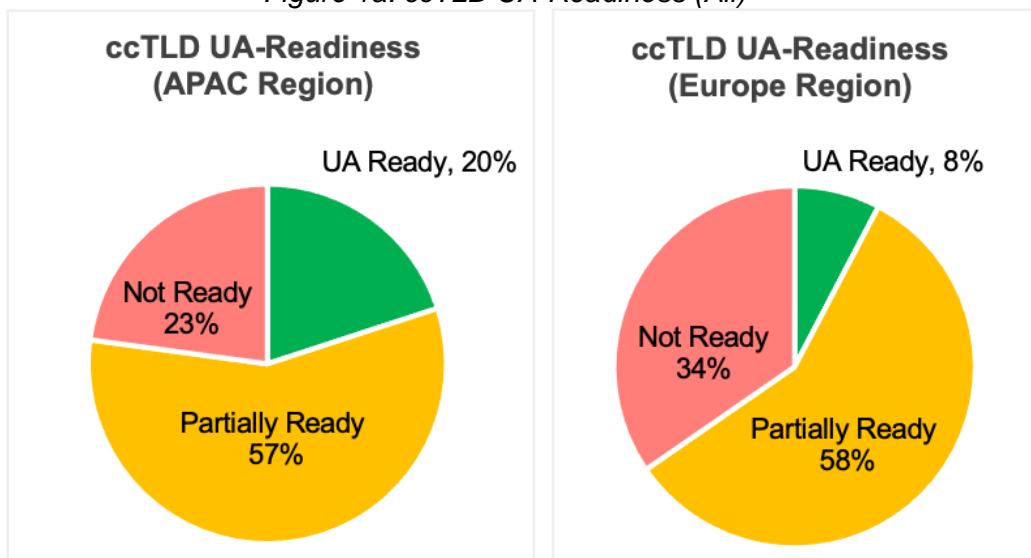


Figure 1b: ccTLD UA-Readiness in APAC and Europe Regions

For the 10 respondents who are UA-ready, their responses to the question “How long did it take to update your systems to be UA-ready?” are almost equally distributed between “Within 12 months”, “Within 24 months”, and “Longer than 24 months”.

The level of support that the 42 ccTLD managers who responded to being partially UA-ready is shown in Figure 2.

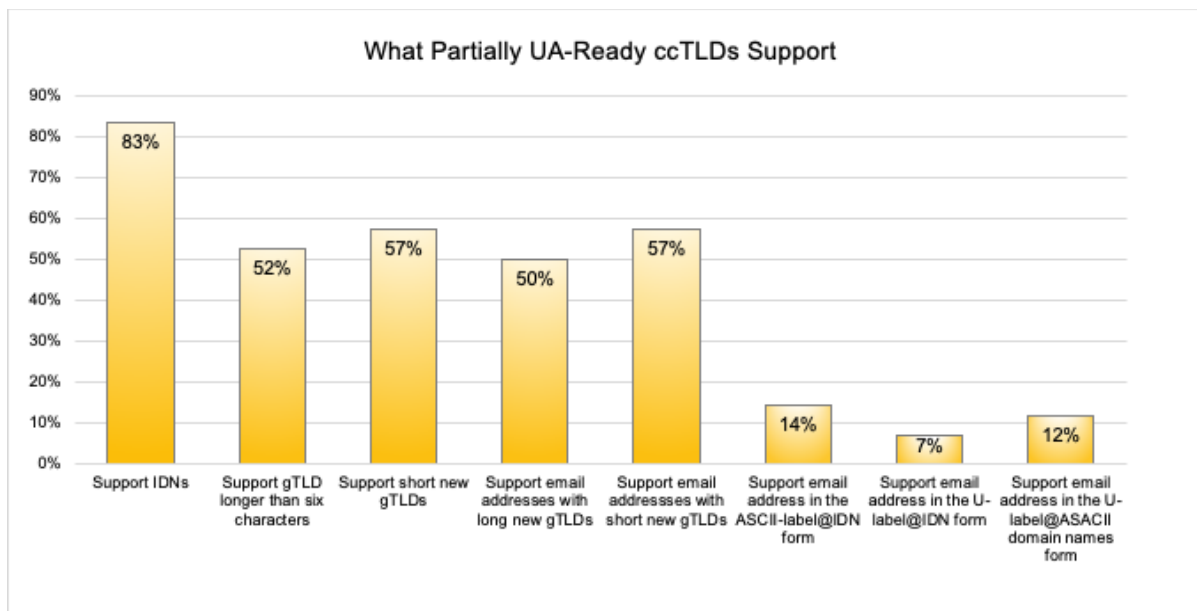


Figure 2: What Partially UA-Ready ccTLDs support

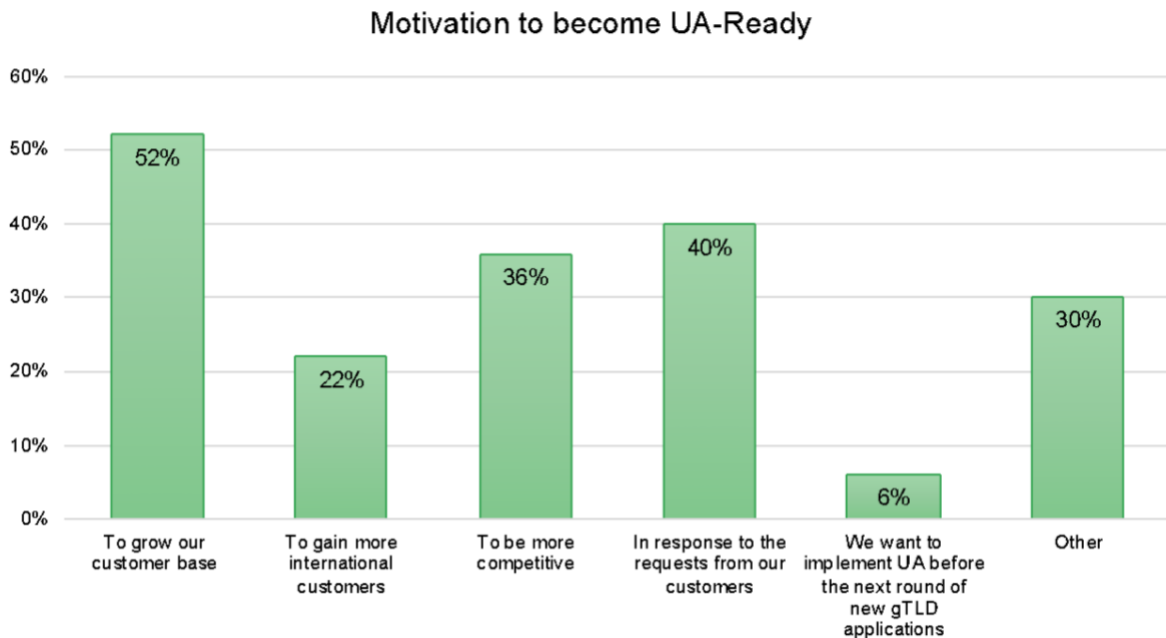
In addition, in the verbatim responses, there are 6 ccTLDs managers who do not universally support all internationalized email addresses but are able to support EAI in their own languages.

## 2.1 Motivation to Become UA-Ready

50 ccTLD managers responded to the question “what motivated you to become UA-ready?” Of these, 9 respondents are UA-ready, 40 respondents are partially UA-ready, and 1 respondent is not UA-ready.

As shown in Figure 3, “To grow our customer base” was the highest ranked response at 52%. The rest are as follows:

- In response to the requests of our customers:40%.
- To be more competitive: 36%
- Other: 30%,
- To gain more international customers: 22%
- We want to Implement UA before the next round of new gTLD applications: 6%.



*Figure 3: Motivation to Become UA-Ready*

The verbatim responses for “Other” can be summarized as follows:

1. To support our language community.
  - a. Allowing expression of local language words in its correct form.
  - b. Strengthening the use of the national language and preserving the culture.
  - c. Provide usage of all languages and scripts used by national minorities.
2. To be a role model for other local stakeholders.
3. To stay compatible with recent standards and developments.

Note: respondents could select more than one response. The next round of new gTLD applications refers to the current Subsequent Procedures currently in discussion with the Generic Naming Supporting Organization, ICANN org, and the ICANN community.

For ccTLD managers who indicated that they are not UA-ready or are only partially UA-ready, 31% include UA-readiness in their roadmap, and 69% do not. If a ccTLD manager has UA-readiness in their roadmap, 50% indicated that they will start working on UA-readiness within the next 12 months.

In addition, to the question “Do you provide or plan to provide a back-end service for the gTLD registry operators?” 19 ccTLD managers answered “Yes”.

## 2.2 UA-Ready Policy Support

To the question of whether ccTLD managers have created internal policies to support UA, 54 ccTLD managers responded. As shown in Figure 4, “Yes” was answered by 20 respondents, “In progress” by 8 respondents, and “No” by 26 respondents.

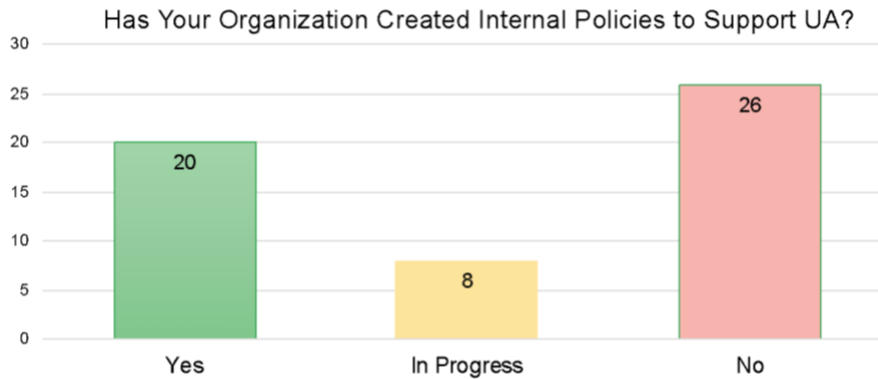


Figure 4: ccTLD Managers and Internal Policy to Support UA

For 28 ccTLD managers that have internal policy on UA, or policy is in progress, the majority of them also communicated their UA policies to the third-party providers.

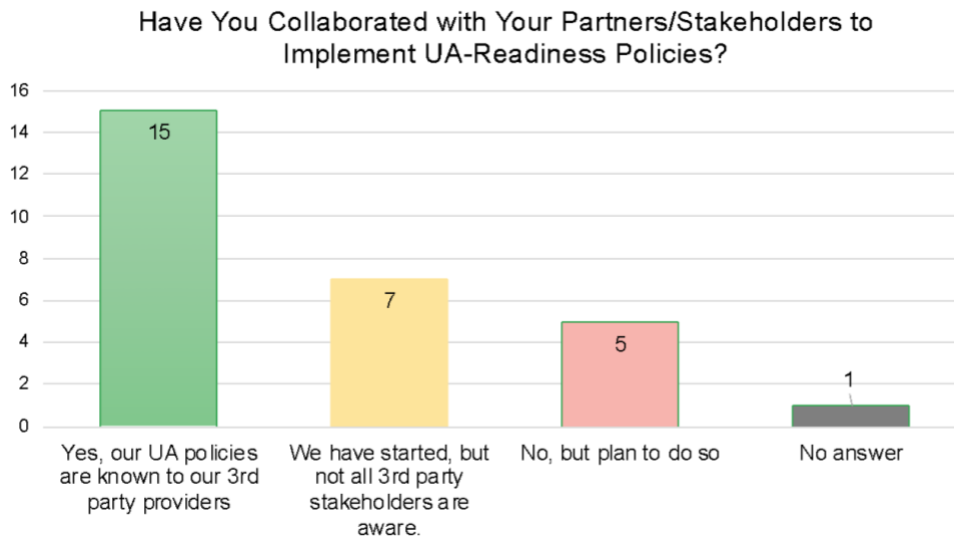


Figure 5: Collaboration with Partner/Stakeholders to Implement Policy to Support UA



## 2.3 Barriers to Becoming UA-Ready

To the question “What, if any, are/were the barrier(s) for your organization becoming UA-ready?”, 53 ccTLD managers responded. Of these, 42 are ASCII ccTLDs and 11 are IDN ccTLDs. This means 72% of ASCII ccTLD respondents experience barriers to becoming UA-ready and 65% of IDN ccTLD respondents experience barriers.

The significant barriers are “Other Priorities” (58%), “Do not see the need to support UA readiness” (30%), and “Lack of UA technical expertise” (26%), as shown in Figure 6.

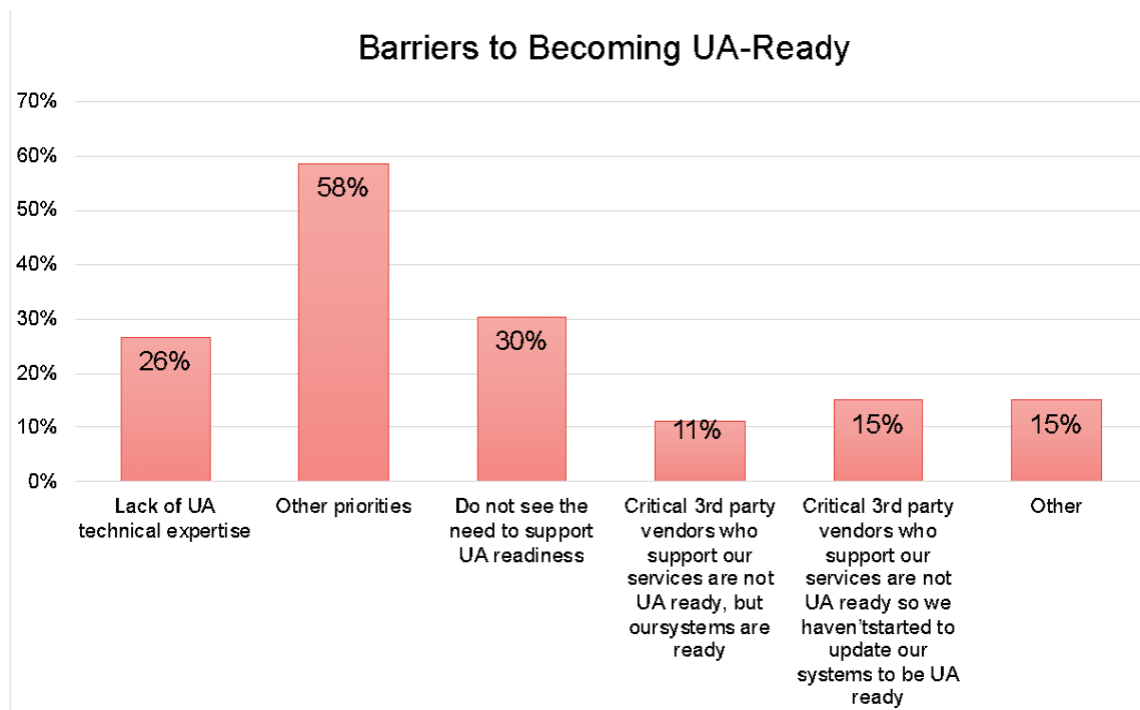


Figure 6: Barriers to Becoming UA-ready

The verbatim “Other” responses include:

1. Lack of demand.
  - a. The local community language uses only ASCII characters.
  - b. Local language uses more than ASCII characters, but no request for customers for IDNs.
2. Political situation in the region.
3. Do not trust the currently available open source.
4. Maintaining the EAI mail servers requires more manpower.

### 3. Training and Awareness of ICANN Org Resources

In this section, all 75 respondents provided answers.

When asked if the organization’s staff (technical or customer-facing) or stakeholders (e.g., registrars, resellers, ISPs, third-party vendors) needed training on UA practices and UA-readiness, the majority stated that training is needed.

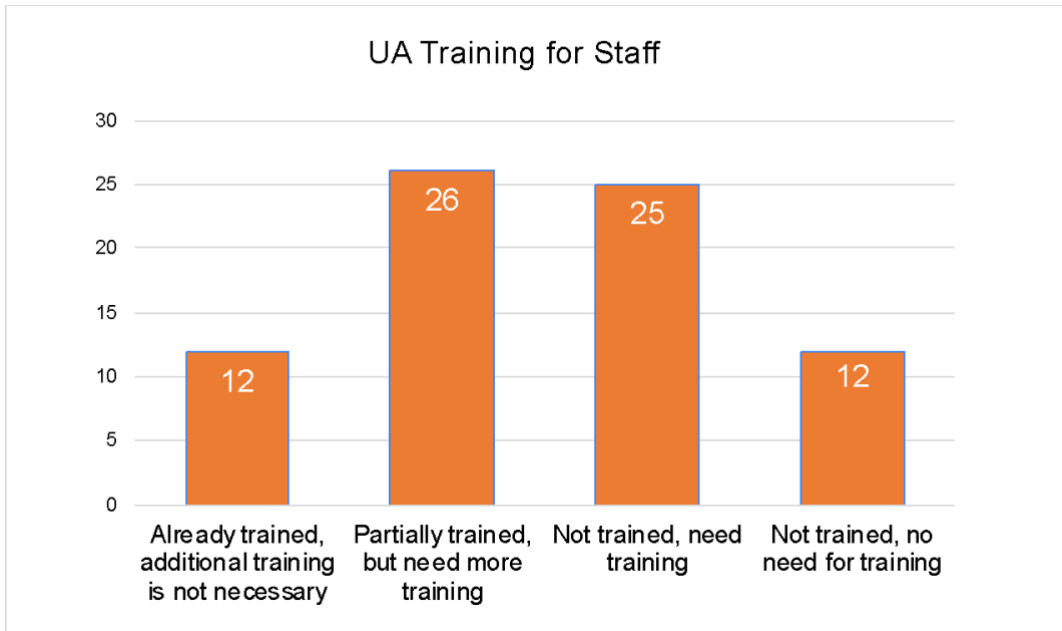


Figure 7a: UA Training Needs for Staff

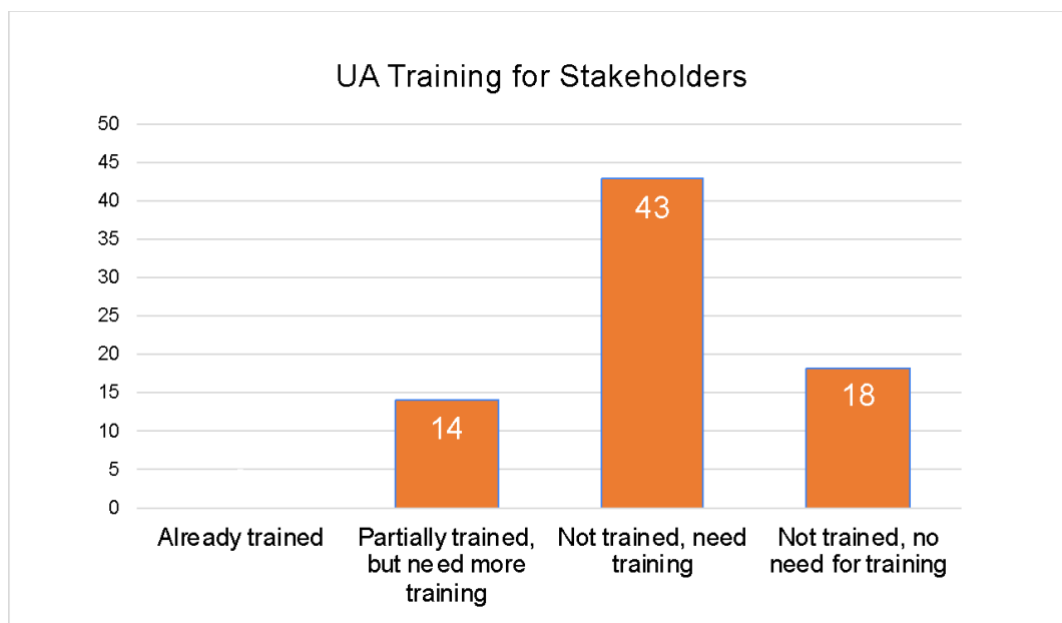


Figure 7b: UA Training Needs for Stakeholders

When asked if they were aware of the technical resources and support available from ICANN org, 59% of the respondents stated they are aware of the technical resources available.

When asked “How can ICANN org support you to become UA ready?”, “webinars” and the “Training for your organization” were requested equally. The area of training includes:

1. Basic introduction to UA, IDNs, and EAI.
2. How to upgrade the system to support EAI
3. How to deal with security issues, e.g., how to distinguish between ASCII domain names and IDNs.
4. How to build business cases for the consumers/registrars and develop technical expertise within the community.

Comments added for those that chose “Other” (than trainings) indicated that ICANN org should:

1. Continue making UA-related materials available online.
  - a. Registry operator critical functions or systems
  - b. Case studies
2. Outreach to global email service providers to make them EAI-ready.
3. Put pressure on commercial service providers, for example, popular social media to become UA-ready.
4. Provide working software solutions to be shared with the industry to build a comfort level regarding the use of IDNs.
5. Create a train-the-trainers program to build more local trainers.

There were two respondents who indicated that no training or further support is required.

## 4. Promotion and Collaboration

Based on all 75 respondents, 26 ccTLDs (35%) indicated that they have promoted UA updates with stakeholders, including registrars, resellers, ISPs, web hosting providers, and customers.

The promoting activities includes:

1. Organizing UA training, webinars, hackathons
2. Offer marketing campaigns for IDNs
3. Release advertisements about IDNs and UA

14 ccTLDs (19%) had also collaborated with other ccTLDs at regional and/or global levels to promote UA updates.

One respondent indicated that in some economies, the ccTLD manager is not the responsible organization for promoting UA. There was also a respondent who suggested adding questions related to security issues in future surveys.

## 5. Conclusion

ICANN org appreciates all the ccTLD managers who participated in the survey to help provide a clearer landscape of the current state of UA-readiness among ccTLDs.

Based on the results of this survey, the general outlook of UA-readiness of ccTLDs is positive, with many ccTLD managers being UA-ready or partially UA-ready (69%).

For ccTLD managers who indicated that they are not UA-ready or are only partially UA-ready, 31% include UA-readiness in their roadmap and 50% of those plan to start working on UA-readiness within the next 12 months. Of the UA-ready ccTLD managers that have internal policies on UA, or policies in progress, the majority communicate their UA policies to the third-party providers.

The main motivations to become UA-ready for ccTLD managers are to grow customer bases, respond to customer requests, and to stay competitive. In addition, supporting local language communities is a key motivation for ccTLD managers.

Both ASCII ccTLD and IDN ccTLD managers are experiencing similar barriers to becoming UA-ready. The significant barriers are “Other Priorities” (58%), “Do not see the need to support UA-readiness” (30%), and “Lack of UA technical expertise” (26%).

Training and materials for technical and business are needed. It was suggested that ICANN org create a train-the-trainers program to build more local trainers.

Many ccTLD managers promote UA updates locally by organizing UA events, offering marketing campaigns for IDNs, and releasing advertisements about IDNs and UA. Some ccTLD managers also collaborate with other ccTLD managers via regional and global platforms.

## 6. Next Steps

ICANN org will continue supporting UA-related efforts within the ICANN community. Additional training materials, based on the survey result, will be made available on <https://www.icann.org/ua>. ICANN org will socialize the [UA Roadmap for Domain Registry and Registrar Systems](#) with ccTLD organizations and platforms, and conduct training as requested. ICANN org will continue reaching out to tech provider companies to support UA.

The survey results will be considered by ICANN org when updating its UA strategy. This report will also be shared with relevant UA working groups related to ccTLDs.

The UA-readiness survey is planned to be conducted periodically to measure progress over time and to get updated input on how ICANN org and the ICANN community can work together to address UA issues.

# Appendix A: Survey Methodology

The UA-readiness survey was developed by ICANN org. In November 2022, the draft survey was tested by volunteer ccTLD managers. Based on feedback received, the survey was finalized and open for all ccTLD managers via communication and outreach by the Global Stakeholder Engagement team. The survey was publicly opened on 12 December 2022 and closed on 31 January 2023.

Section 1 of 4

## Universal Acceptance (UA) Readiness Survey for ccTLDs

Thank you for participating in the Universal Acceptance (UA) Readiness Survey. The survey will take approximately 20 minutes to complete. Listed below is a series of questions designed to determine your organization's level of UA readiness.

ICANN org will aggregate this information and provide an anonymized summary to the ICANN community. **No specific information about the organizations participating in the survey, including the name of the organization, will be included in the summary.**

ICANN org will use this information to determine what support, if any, ccTLD managers may need to become UA ready. A study on [UA Roadmap for Domain Name Registry and Registrar Systems](#) with further details was published for [public comment](#) and can be found [here](#).

Please note that if you operate both ASCII ccTLD and IDN ccTLD, kindly fill in two separate forms.

By submitting my personal data, I agree that my personal data will be processed in accordance with the [ICANN Privacy Policy](#), and agree to abide by the electronic [Terms of Service](#).

**Organization Name \***

Short answer text

**Contact Name \***

Short answer text

**Email Address (You can input your email in both ASCII email address and/or EAI email address) \***

Short answer text

What is your TLD string? \*

Please indicate one TLD for each survey. If you operate both ASCII ccTLD and IDN ccTLD, please complete a survey for each one.

Short answer text  
.....

1. Does your organization offer Internationalized Domain Names (IDNs) at the second level (e.g., 회사.TLD)?

- Yes
- No (please continue to Question 4)

2. Please indicate which answer best describes the IDN registration trend under the TLD.

- Growing
- Stable
- Decreasing
- Unstable

3. What is the cause of the IDN registration trend?

Long answer text  
.....

4. Do you provide or plan to provide a back-end service for the gTLD registry operators?

- Yes
- No

After section 1 Continue to next section ▼



## What is UA-Readiness?



**UA-readiness means** all software applications accept, validate, process, store and display correctly, consistently for all domain names and email addresses (using short or long TLDs, IDNs).

For examples:

example.sky - a domain name under a new short TLD

example.international - a domain name under a long TLD

普遍适用测试.我爱你, คน.ไทย, المملكة العربية السعودية, - an Internationalized Domain Name (IDN)

ईमेल@उदाहरण.भारत - an EAI (Email Address Internationalization) email address

The [UA Roadmap for Domain Registry and Registrar Systems](#) provides further details.

Notes: ICANN org encourages ccTLD managers to support all domain names and email addresses using short or long TLDs and using any scripts. However, ICANN org recognizes that the ccTLD manager may decide to support only a set of scripts relevant to the community of the ccTLD. If that is the case, please identify the list of supported scripts in the "Other" option of Question 6.

5. Considering the definition above, do you consider your organization's systems UA ready?

- Yes (please continue to Question 7)
- Yes, partially
- No (please continue to Question 11)

5a. You answered "Yes, partially" in Q5. Please indicate UA-readiness for each sub-system. Please see definition of sub-systems in the [UA Readiness Roadmap for Domain Name Registry and Registrar Systems](#).

	Yes	Yes, Partially	No	Not Applicable
DNS Query	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
WHOIS Query	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
RDAP Query	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Registrar Admin In...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
EPP	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Exports and Repor...	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>



6. You answered "Yes, partially" in Q5. Please indicate which answer best describes your level of UA-readiness.

- Support domain names with short new TLDs (e.g., example.sky)
- Support domain names with longer new TLDs (e.g., example.photography)
- Support IDNs
- Support email addresses with short new TLDs (e.g. email@example.sky)
- Support email addresses with long new TLDs (e.g. email@example.photography)
- Support internationalized email addresses in U-label@IDN form (e.g. 電子郵件測試@普遍通用測試.台灣 ...)
- Support internationalized email addresses in ASCII-label@IDN form (e.g. name@xn.台灣)
- Support internationalized email addresses in U-label@ASACII form (e.g. 台灣@xn.kn.in.th)
- Other..

7. How long did it take to update your systems to be UA-ready?

- In progress
- Within 12 months
- Within 24 months
- Longer than 24 months
- Do not know/Not sure

8. What was the motivation at your organization for supporting UA?

- To grow our customer base
- To gain more international customers
- To be more competitive
- In response to the requests from our customers
- We want to implement UA before the next round of new gTLD applications
- Other..

9. Has your organization created internal policies to support UA?

- Yes
- In progress
- No

10. Have you collaborated with your partners/stakeholders to implement UA-readiness policies (i.e., registrars or resellers)?

*If you answer 'Yes' or 'Yes, partially' in Question 5, please skip to Question 14. Else, please continue on Question 11.*

- Yes, our UA policies are known to our 3rd party providers
- We have started, but not all 3rd party stakeholders are aware
- No, but plan to do so
- Other...

11. Is UA-readiness on your organization's roadmap?

- Yes
- No

12. When does your organization plan to start working on UA-readiness?

- Within the next 12 months
- 1-3 years
- 3 or more years
- Don't know/Not sure

13. What, if any, are the barriers for your organization becoming UA ready?

- Lack of UA technical expertise
- Other priorities
- Do not see the need to support UA readiness
- Critical 3rd party vendors who support our services are not UA ready, but our systems are ready
- Critical 3rd party vendors who support our services are not UA ready so we haven't started to update our ...
- Other...

### Training



Following are training material made available by ICANN

- [ICANN Learn Course - Introduction to Universal Acceptance](#)
- [UA Regional Training Program](#)
- [UA Roadmap for Domain Registry and Registrar Systems](#)

14. Does your staff (technical, customer facing) need training on UA practices and UA-readiness?

- Already trained, additional training is not necessary
- Partially trained, but need more training
- Not trained, need training
- Not trained, no need for training

15. Have you trained or do you plan to train your stakeholders (e.g., registrars, resellers, ISPs, 3rd party vendors) on how to manage UA or to address customer service questions?

- Already trained
- Partially trained, but need more training
- Not trained, need training
- Not trained, no need for training

16. What are your UA related training needs?

Long answer text  
.....

17. Before this survey, were you aware of the technical resources from ICANN org and UASG that are available for becoming UA-ready?

- Yes
- No

18. How can ICANN org support you to become UA ready?

- Training for your organization (Face to face, Remotely, or Hybrid)
- Webinar
- Other...

19. Please specify what other types of support ICANN org can provide to your organization?

Long answer text  
.....

Promotion and Collaboration



Description (optional)

20. Have you promoted the UA updates with your stakeholders, including your registrars, resellers, ISPs, Web hosting provider, and customers?

- Yes
- No (please continue to Question 22)

21. What were the activities with your stakeholders for promoting UA update?

Long answer text

22. Have you collaborated with other ccTLDs at regional and/or global levels to promote UA updates?

- Yes
- No (please continue to Question 24)

23. What were the activities with other ccTLDs for promoting UA update?

Long answer text

24. Would you consider contributing to UA Day to promote UA updates within your stakeholders? For more information on UA day please visit <https://uasg.tech/ua-day/>

- Yes
- No

25. Any other feedback you would like to share?

Long answer text

## Appendix B: IDN Registration Trend

The survey includes the following questions for IDN registrations under ccTLDs:

- Does your organization offer Internationalized Domain Names (IDNs) at the second level (e.g., 회사.TLD)?
- Please indicate which answer best describes the IDN registration trend under the TLD.
- What is the cause of the IDN registration trend?

From 75 respondents, 56 of them offer IDN registrations at the second level. Of those, 55 respondents also indicated registration trends and causes as summarized in the table.

Registration Trend	Percentage	Summary of the answer to “What is the cause of the IDN registration trend?”
Growing	14 (25%)	<ul style="list-style-type: none"> <li>• The overall registration increases for both ASCII and IDNs.</li> <li>• More information on IDNs becoming available.</li> <li>• Businesses focus more on online marketing.</li> <li>• Meeting the local needs</li> </ul>
Stable	30 (55%)	<ul style="list-style-type: none"> <li>• Not sufficient support on application and services.</li> <li>• Users are accustomed with ASCII domain names.</li> <li>• Some promotion campaigns create more registrations but the trend is not growing due to low renewal rate and lack of confidence that IDN and EAI can be used universally.</li> <li>• The market has reached the maturity point.</li> </ul>
Decreasing	9 (16%)	<ul style="list-style-type: none"> <li>• Lack of awareness of IDNs</li> <li>• Not that useful. It cannot be used universally.</li> <li>• No demand</li> <li>• IDNs are not advertisable globally.</li> </ul>
Unstable	2 (4%)	<ul style="list-style-type: none"> <li>• Local political climate</li> <li>• Though the use of local language in everyday life. Romanized script is used for official communications and administrative matters.</li> </ul>