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ICANN69 | Virtual Annual General – Community Update on Universal Acceptance Readiness  
Wednesday, October 21, 2020 – 12:30 to 14:00 CEST

SARMAD HUSSAIN:

Thank you all. Welcome to the session for community update on universal acceptance readiness at ICANN 69 annual general meeting on 21st of October 2020.

Today, I'm happy to share that we have the UASG leadership and working group chairs with us to provide you an update on the work going on on universal acceptance.

Our agenda, we will go through an introduction to universal acceptance for those of you who are joining us for the first time and take you through some of the activities on UA during 2020. In addition we will have the working group chairs provide an update from the different aspects of work which is being taken up, and finally, we will go into a questions and answers session.

Without further delay, let me invite Dr. Ajay Data, who's the chair of Universal Acceptance Steering Group, to provide us an overview of universal acceptance as well as the activities which have been taken up by UASG. Over to you, Dr. Data.

AJAY DATA:

Hello. Thank you very much, Sarmad, for starting the session again. Very important topic, as we all know. So, welcome. Good morning, good afternoon, good evening as per the regions we have. I can see some of

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the people are joining very early in the morning, at midnight. Thank you for joining in the session. This shows how much commitment we all have from the world over. Next slide, please.

This is, again, a session for community update. As in our standard process in community update, we always talk about [inaudible] introduction about what UA is all about we have lots of new volunteers joining in continuously, a lot of new people are interested to join again, so we spend a little bit of time, and then we will go on to the readiness update where we have reached and what kind of milestones we have reached and what kind of steps we are taking there.

So, starting from the introduction, what is UA? And for those who have not heard it before, it's about the domain names and e-mail addresses, as our mission says, to treat all domain names, all e-mail addresses equally. There's a history behind it where the DNS changes from ASCII to IDN, from three characters to four characters. This is written in front of you, but this is where the problem has started, where the domain names started taking shape of less than three characters, or original seven TLD, more than these domain names, and then the long top-level domains. And this is where the entire discussion of acceptability started, and that's [inaudible] to support the choice of top-level domains, choice of languages, to support the businesses, culture, this entire effort of domain names and e-mail addresses stated, and now the mission is that all domain names, all e-mail addresses, get treated in all software applications equally. Next slide, please.

What can UA mean to you? For those who are joining in are obviously aware a little bit more. For those who are new, a strong understanding

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of UA as a new competitive differentiator. It's a very important skillset which we can have. So you could imagine that the entire Internet is built around English as a script, as a language, and now you have many scripts which can get new customer base, new target, new audience [inaudible] new competitiveness. It has options, availability of opportunities for system developers, software developers, framework developers. All those people can get benefit and can get some business out of it, because this UA has the mission to bring next billion people online. That's the mission. So you could imagine that we are trying to bring, through this initiative, a lot more new people who have never experienced the Internet before.

UA supports multilingualism, and obviously, where we support people to navigate through Internet, complete their work in their own choice of language. EAI is a very important component here., EAI means e-mail address internationalization, which means an e-mail address having at least one character which is non-ASCII. And you would see some examples [on the screens further,] however, this is the UA which we deal with.

Businesses that are UA ready are going to be positioned better for global world as we believe in, and there is a certain study which has shown that there is a \$9.8 billion opportunity—that's a conservative estimate, [inaudible] and we think it's a much larger opportunity than before. Next slide, please.

The UASG is a group which was formed in 2015, way back, you can see. We are now five years old. Lots of things have happened, lots of progress has happened, and the main objective of this volunteer group,

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to give time to ensure that there's enough awareness in the program. As I was sharing that there are people who are joining at midnight and early in the morning shows that there's an awareness that is spreading there. And there are some initiatives we have taken which has helped us to make this awareness much stronger.

Help developer by way of technical support, by way of documentation, by way of remediation documents. We support that there is a developer community who can get the documents, who can follow the common standards, technology tools, and then make all the things UA ready, whether it is a tool or technology or a standard.

Encourage businesses and governments. There are many examples which have taken place, but we tried to push that and convince the stakeholders that they follow the UA strategy, UA readiness strategy and ensure that their software's are UA ready. And we obviously measure the progress on a regular basis. We all know that without measurement, you don't know you are progressing or not. Next slide, please.

These are the vice chairs and myself, Ajay Data, my friend Dusan, friend Dennis, and Mark. All of them are top leaders in their own field, understand the subject very well. You have selected all of us to give more time to this mission. We are all working together to ensure that this is moving in the right direction. Next slide, please.

These are the working groups. I would like everyone to pay a little bit of attention here, because this offers an opportunity also to be a volunteer and work in that field. So there are six working groups. All the working

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groups are open. You could apply for it and you can join based on your interest.

Technology working group talks about technology, language tools, development platforms, standards. Wherever you want to, if you're a developer or administering a framework, you would like to join this group. Not only there is a learning process there, but you could contribute to make a difference in the world.

Second is EAI. E-mail address internationalization. As I already shared, EAI means that there's an e-mail address which is having at least one character which is non-ASCII. We will see examples. This is another group which is working on e-mail technology, so if you have an interest in e-mail technologies which are going to change the way people work who do not know English, you have to see them there.

Measurement working group is a group which measures the gap and try to suggest remediation efforts. This is a critical role. All the groups talk to each other, just for your knowledge.

Communication working group take over information to the masses, build communication, convert them into many languages, coordinate that effort, and build what is required for the community, what is required for all the stakeholders, build that and make it available for all of you. And UASG.tech is the repository for that.

Local initiative working group is an initiative which we have taken in the last two years—this has worked very well—where we go back to the community and tell them, “Could you please get together and create a group? We will support you from the center by text, documents,

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technology support, knowledge and financially. We will support in all ways. Please raise that awareness in your region.”

We understood as the leaders—I showed you the pictures there—that we cannot just understand the whole world sitting at one place. We have to have leaders in each corner, each city, each region where they can take this initiative. Obviously, it’s a much larger [and mammoth task] [inaudible].

UA ambassadors are the ambassadors who represent UA in their region, normally in a specific country, and in their specific country, a specific region, and go and talk about UA, advocate that, influence that, and [inaudible] awareness and training programs in that region so that there are more and more skill development, more and more capacity building about UA-related people. Next slide, please.

There are chairs . You can see who is chair, who is not chair. We are technology working group. Satish Babu, I saw him, he's here. Dessaegn is a vice chair. EAI, Mark. They're going to speak, so you'll see all of them. Working group vice chair is T. Santhosh. Measurement working group, Dennis Tan. Communication working group, Rahul Gosain, and Lilian. I saw most of them here, so you are going to see almost everybody here. Next slide, please.

These are the local initiatives we have. I'm not going to take a lot of time to take everybody's name here. This information is available, but I'm just sharing with you that we are going very important countries and regions, you can see, and there's more in the pipeline. So it's not just the end of it, this is active. So China, CIS-Eastern Europe, India and

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Thailand. I guess almost 40-50% is already covered and more population is going to be covered as the step progresses further. Next slide, please.

And this is what I was talking about, the examples. So you could see the examples here related to the domain names which are affected and the e-mail addresses which are affected, and this is where we believe that if these are accepted as an example, then we have achieved the mission, we have achieved our vision that the world will be UA-ready.

So domain names, if you see the new short level ASCII, which, new means the new top-level domains issued by ICANN, obviously through the process. Instead of .com, it could be .sky. Like in India, we have one bank which is the nationalized government bank, .sbi. It's a new top-level domain.

The long top-level domains are like .engineering, .professional, .doctor, like that, that are long top-level domains. And you could see an IDN. If the domain name written there is a non-ASCII domain, there is no English character in there, they are working domain names. They are not just written as a calligraphy script here, they are working domain names.

And EAI, e-mail address internationalization. So you could see there are examples and there are ASCII examples. The first example is an ASCII example, if you see with the top-level domain which is longer than three characters. .istanbul. And if you could have .engineering, .professional, and even UASG.tech is the right example for that, which is more than three characters, .tech.

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Are you able to send an e-mail to UASG.tech? Can I subscribe to a newsletter, can I book a ticket, can I go to ecommerce site with that domain name? Then that domain name is accepted and they're working everywhere. This is the kind of example we need to put in our mind.

ASCII at IDN, these are all valid examples, by the way. These are all valid e-mail address, examples. If you have come across that e-mail ID and your applications can accept them, then you're UA ready. And how do you test it? What is the principle?

That screen in front of you, there are five pillars of UA through which you hope to test your softwares, or mobile applications, or your websites, whatever the case it is. Am I able to type in my e-mail address, which is any of the examples? All the five examples written there must pass through. Accept, validate, process, store, and display. All of them have to pass through. If your application is able to do it, you must congratulate yourself that you are UA ready application running. If not, there's a bug to be solved.

And this is a very important slide to understand, and this presentation is available, by the way, on ICANN schedule, so you can download it or reach back to us, we can send you the more particular information if required. Next item, please.

This is the remediation cycle. How do we find the gap, and how do we move further, take steps to follow and get the remediation to the world? That's the process which we follow. So you could see it's a cycle which goes through identifying, release a statement of work, start a project, prioritize technology gaps, what is required, develop



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remediation guidance, engage with stakeholders, support remediation. This is the cycle.

And you can start from anywhere and see what is required and then go back in the loop and try to cover the whole cycle and get to the solution that this is what is required to the work and we deliver to the work. There are many steps involved into it, of course, with the help of community and [inaudible] just like you, we are able to achieve and ensure that these things happen. Next slide, please.

So this is the technology stack. You could see that almost everything you would know, which is important right now. That is for sure, there will be technologies or there will be softwares in your region which may not be covered here. So we have not gone into right now to cover the specific regional importance. We have gone to the world level as importance. So now local initiatives groups are going to [inaudible] that this is what is required in my region and please also take up and find the gap and do the remediation work. We're more than happy to look at that opportunity also. But currently, do not see that your local initiatives or your local applications are not covered well here. If you have, please come back to us. We would be very happy to add them and see. If it is an importance, then we can bring on private, for sure.

These are all being covered, mostly, all top five, top ten, top three are the sentences which we take from the bit of our search, and try to address them. This is what we are currently taking another technology stack. Next slide, please.

So this is the report. I will not spend too much time on it. If you have UASG.tech website, I would request Mohamed to please share the

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report here. Yeah, I think he already shared on the chat. You can see, this is the report available to you. You can download it, read it. I would request everyone to please download and see this report. This is a wonderful report. A lot of effort, a lot of dollars have gone into, and this is a gap analysis which you will see, [where is readiness of the world] and where we have found gaps. Next slide, please.

I'm going to share a little bit out of this report. So you could see 9.7% of e-mail servers are potentially configured to be EAI-ready. So remember that there's a slide where we showed examples of the domain names and email addresses. So just focus back on the e-mail addresses. Only 9.7% e-mail servers are accepting those e-mail addresses which have non-ASCII characters. So you could see we are very far from achieving the goal of 100%. And only 11% of top 1000 websites are supporting email addresses in Arabic and Chinese. So this is true even for all the languages. So you could see that only these many websites are accepting the domain names, the e-mail addresses of Arabic and Chinese. We are very far from the [inaudible] and we are really far from achieving our mission. So we hope to see that we all work together to achieve those missions and take the next numbers to next level. 98.3% websites support two-character top-level domains, so .in, [inaudible], which [inaudible] accepted, but you could see even some websites still [inaudible] so we need to also look at that. Next slide, please.

So these are the ambassadors we have. These are the countries which we have taken, and you could see these are represented, and this is not the end list here, this is open list. If you are interested to join the initiatives or become ambassadors, you can join it. Next slide, please.

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You could see some of the programs done by ambassadors, outreach, engagement. That's what our ambassadors do. So if you are inclined to become ambassadors, you will be featured like this, and you will be doing events such as them right now in your region. So if you think that you can take the initiative further and drive those agendas, please join in. This is what UA supports through ambassadors program. Next slide, please.

So you could see the names. I would just avoid taking all the names as the time is running short. So we have eight ambassadors, seven new ambassadors this year, and we have [inaudible] ambassadors right now, seven in the last year. So you could see that we have six this year and seven old. [inaudible] new ambassadors are there right now, and we would like to see that this number does not remain there. We would like to see more and more ambassadors to join. So if you are interested to join the ambassador program, start working in your region, try to see that you're passionate about UA, then contact us and you have a program always open, you could apply for it and you could be the next person in your region. Next slide, please.

Local initiatives. I already shared there are local initiatives which are going on right now, and they're in the [inaudible] Turkey, Middle East and Africa. You could see these are the initiatives which are [inaudible]. If we are able to cover Middle East, Africa and Turkey, I think we will cover the most important regional language specific areas. Almost 60-70% of the world will be able to reach there. I think this is very important.

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And if you are interested to initiate a local initiative program, I actually got a request after my first initiative from South Africa, so this is a very interesting time. They want to start a new local initiative. So this is the whole idea. We think that if these [inaudible] events and people can get motivated and start something in the region, the whole purpose of this gets achieved. So if you are interested in your region, please contact us and we'll be more than happy to take you to the next steps. Next slide, please.

And there's a local initiative charter available outside already. So if you are interested to start, you could look at the charter available outside. I would ask Mohamed to also paste that link, so if somebody is interested, they can directly take that link there and take steps from there. And feel free to contact us. We're always available to help you.

This is our effort which we have done. You could see how many awareness programs have been organized until now, and how many trainer program, how many volunteers and in how many countries we have done it. This is a fantastic [amount of effort that is] happening. Some of the efforts have been obviously stalled because of the pandemic, but we are not stopping. We are still going to the speed, we are trying to do it remotely as much as possible. Next slide, please..

This is the project development process. As you should know, completely transparent process. And I want to tell on the record here that none of the ambassadors and leadership pl are able to participate into the projects which are financially funded and supported by us. So this is a complete transparent process here, and there's no conflict in-between the ambassadors, leaders and the volunteers who work here

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and the people who do the project. This is the process which we have all accepted and we are [inaudible] that design of the statement of work. So these are the processes which we are moving in that direction, so you could see that we design them, it is reviewed by all the working group chairs together, and it is published on our discuss list on our website. So all the people know about it, and then anybody who participates, [ICANN] follows the process of the building, and then the project is awarded. Next slide, please.

Thank you very much, Sarmad. Thank you very much, everybody, for allowing me to share the update. And I will hand it over to my friend Dennis, vice chair, UASG, to talk about measurement working group. Over to you, Dennis, please. Thank you.

DENNIS TAN TANAKA:

Thank you, Ajay. So I'll walk you through the efforts within the measurement working group. The measurement working group, our mission purpose is to do gap analysis on technology and platforms and assess what the universal acceptance deficiencies are. The approach, how we do our work, and when we talk about technical analysis, is that we take it in a phased approach. We call it the discovery and expanded discovery.

And we do this because we're doing this measurement for the first time for the most part. So that's why on phase one, we take a small project, let's for example talk about social networks, and so when we say discovery, we want to develop a test plan that would apply across the board, but we don't want to spend excess time or funding in order to do this. We want to do what sometimes in the product industry is called

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proof of concept kind of thing, right? So that's what we do first in the discovery phase. Small projects, small scope projects so that we can test our assumptions of how we can do testing on a specific platform, and then when our report comes back, we can assess the deficiencies that we found in that specific project or set of application, and then we can decide whether we expand discovery to a larger set of applications or we redo and adjust our approach, our testing.

So we can do this, and maybe an example will clarify the approach. Next slide, please. So this is an example. Right now, we are undergoing a contact management system project. So we started with phase one, the discovery one. In that one, the working group decided to start with Wordpress.org which happens to be the largest open source content management system platform used around the world. So we start with that one to test our assumptions of how we go about assessing UA readiness in a content management system.

So that's undergoing. We expect to have a report by year end or early next year, and then from that report, we are going to be discussing whether we need to expand and look at the other content management system applications out there in the ecosystem, and not only the open source kind but also those that are like more proprietary one-stop shops to look at how UA ready they are. Next slide, please.

So for the fiscal year 2020, 2021, we gather our working group and the other UASG working groups and collect feedback as to what are the types of platforms and applications we want to look at. And we define a methodology to prioritize, and that's what you see in third column from the left, the end user impact. So we listed from the top to the bottom

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the higher priority ones and we just group them so it's easier for us to manage in each of the quarters of the year.

So from group one, we have started to look at social networks applications, so the Facebook, Twitter, WhatsApp, WeChats of the world. We'd gather information from our local initiatives so that we can study relevant applications within specific regions so that the information that we gather is [relevant] for them to create those opportunities to discuss with their local software developers.

So in group two, we were looking at a refresh of the website studies. This is kind of our staple study assessment that we do now. This would be the third iteration and we are going to look at expanding a little bit the scope. So on the websites for example, we look at the acceptance of e-mail addresses in contact forms, webforms, or you name it. But also, we're going to be testing a round trip of the e-mail addresses such that we can establish whether all the flavors of domains, e-mail addresses, whether they can be accepted or not from a purely delivery process. Not just acceptance on our webform but the actual delivery of the e-mail message, again, using all the flavors of e-mail addresses from all ASCII to all Unicode.

So in group two, we're going to be looking also at second [phase some] content management systems, so this would be the expanded discovery, continuing upon the receipt of the phase one, which is undergoing right now. And then we have all other projects, and depending on the bandwidth of the working group, we assess whether we can do this within a year or we need to roll over to next year. And this happens because what we do in the working groups is we will try to

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balance the time of the working group volunteers in order to develop the scope of the project and discuss the testing cases and whatnot, and then for the most part, we outsource the execution of it so that we can have a consistent execution of the test plan by one single organization or individual or team and save resources on the working group side so that we can move on to this following project. Next slide, please.

This is a little bit of the same view of projects but just on a time scale. So we're looking at starting these different projects in different quarters of the year. The open source, there's a [last year] project which is in open source code applications that we are looking at, so this is the applications written in Java and Python in GitHub repository. So we're looking at assessing what libraries are they using, whether they are UA ready or not. It's a little bit behind, but we hope that we're going to receive the final report before year end.

I think that's it from me. Are we taking questions now or at the end?

SARMAD HUSSAIN: We can take questions if there are any. I don't see. Mohamed?

MOHAMED ELBASHIR: No, we don't have any questions.

SARMAD HUSSAIN: All right, so I'll hand it to Mark. Thank you.



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MARK SVANCAREK:

Thanks, Dennis. Welcome everybody. I'm Mark Svancarek, chair of the e-mail address internationalization working group. As already mentioned, e-mail address internationalization is RFC6530 through 33, and it's related to e-mail addresses that support the SMTPUTF8 format, which means mainly that they include Unicode characters. Next slide, please.

So you can see that there's been a little bit of progress on this topic. It's a complex topic because it depends on—it has the greater list of dependencies compared to many other universal acceptance issues. Not only do you have to support IDNs, but then you have to support the additional aspect of e-mail addresses.

So you could see on this chart that Arabic remains the biggest challenge. Not only is it EAI, but it's also right to left, meaning that a lot of systems are not right to left compatible just off the start, so that's an added difficulty. But we have similar difficulties with Chinese EAI addressing as well. Luckily, there's been some good progress on both of those.

You can see there are some interesting things here that Chinese.Chinese is a little harder than ASCII.ASCII. That makes sense. Chinese.ASCII is better for some reason. It really probably comes down to regexes that are being used to validate these things. And that's an ongoing problem, people trying to validate e-mail addresses as part of their applications and services where those validations are inadequate or wrong, or even unnecessary.

The non-internationalized versions of the e-mail, you can see that the progress is quite substantial and it's becoming less and less of a problem over time. Next slide, please.

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So as I said, this is a complex issue mainly because e-mail services—there's a lot of legacy service out there right now, a lot of legacy apps and services and software libraries, and there's all these different components. So you can see in this picture that when the user enters in their e-mail address from whatever user agent they're using, whether that's an application like Outlook or the mail app on your phone, or even a webapp, that it has to go through all these intermediary steps until it gets to the recipient, and then that process, the return path, is of similar complexity. So we have to look at all these different parts and try to mitigate the problems in each of them. Sometimes that means having to reach out to vendors and convince them that there's a good user or market requirement for them to update their components. In other cases, these are based on open source libraries and we have to get those corrected as well. Next slide, please.

We've been doing a lot more testing. We've been developing a methodology over the last year to decide, how do we test these things? What is the criteria for success? And then we gradually scaled out to get more and more testing over a broader swathe of the ecosystem. So right now, we're in an intermediate step. We've proven our methodology is good, we've begun doing an early—you can see here some current testing that we've done, and right now we're in the process of doing a major assessment of the ecosystem, many more components, many more suppliers, more complex user testing, unit testing. So there'll be a lot more information available the next time we meet. But this is a good overview of where we are right now.

So you can see if you look at these top five platforms that things are getting green, but there's still a lot of yellow and there's still quite a bit

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of red for no support. Luckily, we've increased our contacts into these organizations and we're getting some traction there. But the going remains slow and there are a couple reasons for that, just what the update process is within these corporations, whether they see this as a bugfix or a feature request. People prioritize things differently.

But generally speaking, this is progress here. so I think when you see the larger testing that we're doing right now, I don't want you to become too worried, because it'll probably appear that there's more red on the chart, and that's to be expected, because the engagement with those suppliers, work on those libraries, etc., will be more nascent than what you see here. Next slide, please.

Next slide is regarding webmail services. A similar assessment, except that you can see at the bottom there's a whole bunch of features that are considered to be less important when you're in a webmail environment, so they're not supported, it's not as critical a loss as they would have been on the previous slide. Please go ahead.

So you can see some progress here. Actually, sorry, I forgot we even had this slide. Please go to that link and test your e-mail server for the proper support. You can see here that—no, actually, I don't know this slide, so please go ahead. I apologize. Here's an evaluation of availability across the Internet. You can see that Gmail and Outlook.com are well represented. Haraka is another big one there. There's a lot of work to be done here, clearly, because you need to make it all the way across through various hops and there's lots of places where things can fall down. But in terms of some big suppliers, progress was made. Next slide, please.

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So I'd like to talk about the working group, because I'm very excited about the working group. In the past, we were mainly operating just as individuals trying to reach out to the various suppliers, and we were engaging with the library developers in an ad hoc fashion. But now we have a new working group that's been meeting very regularly for the past several months with a lot of engagement and people volunteering and participating and creating content and doing work, and it's really great and exciting.

So the focus of this working group, we're focusing on things like the mailbox portion of an e-mail address because we already have coverage on the domain name parts, by and large. We're focusing on outreach through different collection of people, so email administrators as opposed to procurers and things that are already covered by another working group in the thing.

And as you can imagine, this is all about, as it says here, remediation of technology, talking about training materials and service providers, promotion and awareness. That remains consistent with the rest of UASG. So we've been publishing some things now. We have a best practices document for naming your mailboxes. This is something we hadn't considered before: if you are trying to deploy an EAI system, you're going to have to deal with your own internal policy. So this is something that's not related specifically to the developments of these apps or services, this is about the user of the services figuring out how they want to configure things.

So if your ASCII system had eight-letter aliases, how long should your EAI systems, mailboxes be? How do you deal with variant-type issues?

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In domain name space, we know that domain names that are considered to be the same within a language community, those are called variants. We didn't have a similar concept for mailbox names, so we've come up with a concept called equivalents. Very similar, not the same, because label generation rules don't actually apply to the mailbox names. So we've really had to develop some new concepts and terminology in order to have the conversation with administrators on how to set up your policy. This document is recently published, I think you'll find it informative, and of course, we're always accepting feedback on it. We hope people will use it.

A new project we have is based on the idea that most developers are very pragmatic, and pragmatic means in a hurry, reusing code. Some people say it means that they're lazy. I think that's not really the case, I think they're just pragmatic and have more work than they have time.

So there are a lot of resources online such as Stack Overflow, Server Fault, GitHub of course, that are not just repositories for code but repositories for advice regarding code. And I as a developer leverage these sites very heavily. I know that a lot of other people do too. And when you go and you visit them, you see that the advice regarding universal acceptance is either missing or misleading or wrong.

So right now, we're trying to establish what is the process that our community should have to engage with these sites and develop new advice for developers on there so that going forward, when people want to know how to validate an e-mail address, for instance, to make sure that they're thinking about RFC 6530 and higher as opposed to the

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older formats. Or even whether or not they should validate at all. Have these conversations in an authoritative way.

So that's something that's going on right now, and there'll eventually be a statement of work put out to find a vendor to help us do it, because although our volunteers are participating with this right now, in order to do this in a comprehensive and professional manner across all of these sites is going to require some dedication and we think that a vendor is probably the best approach for that. I know there's been some questions about whether or not the community volunteers should just do it or whether we should get a vendor. In this particular case, we thought a vendor would be more appropriate whereas in the best practices document, that was community-driven.

And then finally, we're talking about how we solved what we call the chicken and egg problem. All this comes down to, is there a market demand for these things? In some cases, people will just say, well, my values determine that we should offer this support. And that was really the case with Microsoft. We evaluated that EAI was an important thing for inclusion and to empower people around the world, but it was still a difficult conversation because the largest parts of our market are currently happy without EAI. Certainly the North American market does not require EAI. And so we had to have these conversations internally, and it was challenging to make sure the work was prioritized at all times, which made it take a little longer.

But we're hearing from other vendors that they're going through the same prioritization, evaluation, and we're making some progress there. That doesn't mean that the work is done. We still have to continue to

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get the awareness out there, help people realize that this is important work, and we're actively considering all sorts of innovative things.

One of the things that we considered was what if there was a certification or a logo process? RIGHT NOW, in order to know if something is EAI compatible, you have to go to a website and look for the information, or maybe documentation within some code, or maybe the usage, the online user manual that comes with it. It's hard to even know, so if we could encourage suppliers to just put that information up front, that would be very helpful for everybody, from users to people who are buying and evaluating software. But there need to be some incentives. So, how do we do that?

This is something we're talking about in the community right now. So if you were to join our community, this would be one of the topics that we're really diving into right now. Next slide, please.

Thank you very much, everyone. If you have any further questions, please don't hesitate to put something in the chat or contact me directly. Thanks.

SARMAD HUSSAIN: We do have a question. Let's see if Mohamed can read that out for us.

MARK SVANCAREK: Okay.

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MOHAMED ELBASHIR: Sure. The question is from Amanda. E-mail address internationalization supports a multilingual, diverse and inclusive Internet by ensuring email addresses on Internationalized Domain Name (IDN) or Unicode components function correctly. The UASG FY20 UA Readiness Report indicates that 9.7% of email servers are potentially configured to support email address in local languages and scripts. Is there any list of these 9.7% email service providers/software on UASG website to know who all supports? Also is it possible to experience or test how EAI email address works from UASG website?

MARK SVANCAREK: All right, so that's a couple of questions. Mohamed, do you recall, which is the document that has the details on that 9.7%? Off the top of my head, I don't remember which of our documents that is.

MOHAMED ELBASHIR: I can find it.

MARK SVANCAREK: Yeah, if you could find it.

MOHAMED ELBASHIR: Sure. And I'll post the link. Basically, there were MX record research done on TLDs, so I will find that and I'll post it. Thanks.

MARK SVANCAREK: Thank you very much. Yeah. Because that is what we did. So John Levine went out and did an MX record search across all the TLDs, and that's



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where that information was derived. You'll see the list of data, but also the methodology will be explained.

The question regarding how to experience or test EAI addresses from the UASG website, I think you're referring to the "Please test my e-mail address" feature on the website. Thanks, it's 21D. Now, I haven't used that feature in a while. I assume it's still up on the website. Is that correct, Mohamed?

SARMAD HUSSAIN:

Yes, it is still up on the website. Thank you.

MARK SVANCAREK:

Yeah, so if you go to the website, there is an ability to test an e-mail address and see if it is properly supported. Over time, we'll have a more comprehensive way of doing this. If you want to really do your own more thorough testing, you could acquire an e-mail address from a supplier that hosts them, such as Xgenplus or Coremail, and use them to e-mail all the other people in your address list, in your contact list, and see who can receive it and who can't. That'll be a combination of things, of which software they are using, which software you are using, and whatever things happen to be in-between. I'm seeing that using Xgen and Coremail addresses within the Microsoft system. So we're not hosting these addresses yet, but we have good support for them as a user. So I use my Hindi address all over the place, and I haven't had any problems with it in quite a long time. And that may just be that I'm talking to people mainly on certain systems that support it. Your experience may be a little different. But if you do want to do that

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testing and provide that feedback to the working group, that would be great. Thanks.

SARMAD HUSSAIN:

Thank you, Mark, and we'll invite Satish Babu to take us through the work being done by UA technology working group. Satish.

SATISH BABU:

Thank you, Sarmad. Good day to everybody. Next slide, please. The UA tech working group has the mandate of remediation and mitigation of the gaps that are kind of located through the different processes that we have adopted so far. The gap analysis is done sometimes by the measurement group and other times by tech as well as EAI working groups.

Our stakeholders are basically technology enablers and developers, and these are not kind of monolithic groups. It ranges from single person library maintainers to large organizations. Now, I should reiterate that this is an open group and we welcome both ideas and participation. We meet twice a month and we would like to have more community participation, because at times, it is a small group. And from the interest that we see in these meetings, we would like to welcome many more of our community members to join. There is no joining criteria, you can just provide your e-mail ID and join. And please attend the meetings.

So to continue the discussions and the questions posed earlier, now regarding the work that we're doing currently as well as for the FY21, we are working on the current SOW which is about evaluation of standards and best practices. These are basically organizations that put

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out standards. Now, we are talking about things like the World Wide Web Consortium and its constituent working groups. Then we have the WHATWG which stands for the Web Hypertext Application Technology Working Group, IETF itself, the Unicode Consortium since Unicode is the foundation of IDNs, and there's also the M3AAWG, The Messaging, Malware and Mobile Anti-Abuse Working Group, and then there are a few more.

Our current work is basically to contract out through an SOW to a vendor to make a list of all the relevant organizations and standards bodies that we need to consider when we want to kind of propagate the message of universal acceptance. This work is currently going on, and this SOW is now ready and will be put out for contracting shortly.

Yesterday, there was a question on the UASG document 004 which basically provides the test cases, and there was the feedback that that document as of now only had two languages: Chinese and Arabic. So we have been working on this. The tech working group has been working on this, and we have now included something like 19 other languages, Armenian, Bengali, Cyrillic, Devanagari, Georgian, Greek, Gujarati, Gurmukhi, Hangul, Hebrew, Hiragana, Katakana, Lao, Latin, Malayalam, [inaudible] Tamil, Telegu, Thai, Simplified Chinese, Traditional Chinese, [inaudible], Ethiopic, Myanmar, and [inaudible].

Now, to test these domain names, we are in the process of registering our own test domain names. Basically, it's like universal acceptance test at these domain names. And these will become live shortly and they will be incorporated into the document 004.

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Now, one of the main pieces of work that we've been doing is to identify the level of readiness of different programming languages and frameworks. Now, this has been done in two parts. The first part has been completed, contracted out, and we have the report and this is UASG 018A. The next two slides will look at some of the findings of that report.

There's still one more piece of work, because we had a tough time basically prioritizing which are the programming languages that we should consider, which are the libraries to be considered. So now we went through a process of trying to prioritize based on the popularity, but then we found it is not easy to kind of convert into numbers what popularity was, and the sources of these numbers are also not very clear.

So we have gone by the judgment of the community, or the UASG tech working group itself to prioritize which are the languages we should take up, languages, libraries and programming frameworks we should take up in the first round, and that is now complete and the report is now available.

Now, there are still some more because there's a huge number of frameworks and languages that are being used currently. So we will see in the next two slides some of the outcomes of the work that we have done. For FY21, we have now got the gaps through the earlier work done, and now we need to get these gaps fixed. That is the remediation, mitigation aspects, and currently we are having discussions on how best to do this. We don't have a single answer yet, but this discussion is also open for suggestions from the community members. We're also helping

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the communication team develop training materials on a priority basis.  
Next slide, please.

In the next two slides, we'll take a look at some of the findings from the gap analysis done earlier in the year. On the left, you have the languages, we have c, chsharp, go, java, and the following slide also has more. Then the library name in each. The complaints on the dataset. Now, the datasets are given in the final column, and if you want more details on these datasets, please take a look at the document 018A.

You can see that there are perhaps an equal number of reds and greens. Not all these libraries and languages or a combination of languages are used in the same numbers. In short, if you fix a gap here, the impact of that gap, as Dennis has pointed out earlier, it is different for different rules of this table, and you can see that there are some significant reds here, and we hope to be converting these reds to either yellows or greens as we go forward.

So some of these languages, yesterday it was pointed out that some of these reds, we don't have to fix them because they will eventually go out of business because they are using old technologies or they're not popular, so we don't have to bother about them.

So we have to then keep an eye open for what is likely to be popular, what is a current trend of the use of these libraries and programming platforms. Next slide, please.

This is a continuation of the previous slide. Here, the languages we're looking at are JavaScript, Python and Rust. And here we seem to have slightly better compliance, and we see that there are more greens here.

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Looking forward, our task basically is to continue the work on finding gaps with other languages in the libraries, and from these gaps as well as any future gaps that we determine, to mitigate and close these gaps.

So this remediation is the primary task of the tech working group, and we hope to be getting started in earnest from this year onwards. This is not to say that remediation has not been done in the past. Remediation has been done since day one after the UASG has been formed, which is 2015 or '166. But there is a lot of work to be done and we are on the job. And once again, I'd like to request that anybody from the community who's interested in these areas who's either technical or interested in technology are most welcome to join the tech working group. Thank you, and I'll be happy to take any questions if there are. If not, back to you, Sarmad.

SARMAD HUSSAIN:

Thank you, Satish. Are there any questions, Mohamed?

MOHAMED ELBASHIR:

Thank you, Sarmad. There are two questions from Maria. The first one is the idea of the document statement of work, AI technical education awareness through developers community via a Q&A website, but can it be expanded to IDNs and new gTLDs as well? Why was it made for EAI only? We also suggest to make it in more interactive way, to provide the possibility to developers or any other stakeholders to ask online their own questions and receive answers instead of the static FAQ only as it is described in the document. Are there any such plans?

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**SATISH BABU:** Thanks very much for the question, Maria. It's an important question, and we also have mentioned in the first slide that we are putting out material for training for the technical community, but we hadn't really considered the possibility of a helpdesk where people could send e-mails and get support.

This is something that we will now propose to the leadership team so that if it is of utility, then we can actually consider, both in terms of making information available on an interactive basis as well as some kind of an e-mail-based helpdesk where we can provide support to the people that need it.

So we hadn't talked about this so far, I think, but we will be happy to pass this on to the leadership team.

**SARMAD HUSSAIN:** Thank you, Satish. Mark, do you also want to respond to that?

**MARK SVANCAREK:** My apologies, I was responding in the chat. Could you remind me what the question was?

**MOHAMED ELBASHIR:** Sure. There's also another question from Maria which is basically the idea of the document statement of work, EAI technical education and awareness to the developers community via Q&A websites is really valuable. But can it be expanded on IDNs and New gTLDs as well? Why was it made for EAI only? We also suggest to make it in more interactive way, to provide the possibility to developers or any other stakeholders

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to ask online their own questions and receive answers instead of the static FAQ only as it is described in the document.

MARK SVANCAREK:

Okay. That's what I was answering in the chat. So to summarize those two questions, one of them is why id we focus on EAI, and the simple answer is that we developed this concept within the EAI working group over the course of the work year, and the other working groups are aware of what we're doing, but this was the focus that was created within the EAI working group. That's the short answer.

What's really happening is that within the EAI working group, we felt that this was a particular concern for e-mail addressing just because there's a large body of wrong information out on Stack Overflow and places like that related to email addressing in general, not just internationalized e-mail addressing but all email addressing, people saying, "How do I make a regex to do this thing or another thing?" And then you see these threads going on for many years and talking about the wrong RFC or giving bad examples of regexes, and the few voices saying "Don't do that at all" or "Don't use a regex" kind of get buried in that process.

So in EAI, we felt like just the body of information that is out there right now really needs to be addressed because even before you get to e-mail address internationalization, just the information about any e-mail addresses is wrong.

And that may be a valuable exercise for other groups to do related to domain names, but I really feel like this is a case where it's utmost



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priority of the EAI working group and some elements of the domain name portions are going to be covered just as a matter of course because when you talk about EAI, there is always a domain part.

Now, regarding going to an interactive model as opposed to a static FAQ, I don't really know how we would accomplish that within a community of volunteers. So I would be interested to talk about what you're envisaging and how you think it would work, but my initial concern would just be that we would not be able to provide very good service. Without actually having people on staff to answer these questions. I'd be worried about what sort of service level we could provide or how much it would cost. S, happy to talk about that more though. Thanks.

SARMAD HUSSAIN:

Thank you, Satish and Mark. We will move on to an update from UA communications working group, and we have Lilian here with us. Lilian, over to you.

LILIAN DELUQUE:

Thank you, Sarmad. Our universal acceptance communication working group, we work in fiscal year 21 priorities. First, the objectives of our working group is to develop communication strategy for the UASG and oversee. Execution is in close collaboration with the ICANN Org [inaudible] communication team. Other objective is universal acceptance case studies showcase the successful implementation of EAI and IDN e-mail service, and also provide lessons learned and best practices in organization's journey to be universal acceptance-ready.

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And the new and important project is the redesign of universal acceptance's UASG.tech website.

Our fiscal year 21 projects is publish two or three case studies focused on successful EAI implementation and universal acceptance readiness experience led by ICANN communication team and universal acceptance program. This is teamwork. Also provide support of encouragement for global and regional Internet governance forum, the IGF, and school of Internet governance. Many groups of universal acceptance participate in the IGF for this year on DC-DNSI. Next slide, please.

Other activities of our working group is reports and publication about universal acceptance. This is a material that the community can consult on our website. These documents are introduction to universal acceptance, that is an overview of the baseline concepts of universal acceptance and introduction to advanced topics such as right to left scripts, Bidi algorithm and normalization. This document is in Arabic, Chinese, English, French, Russian and in Spanish.

Other document is EAI evaluation of major software and service. This document provides details of discovery and analysis phase of the EAI evaluation project and is only in English. Other document is EAI evaluation of major e-mail software and service that provides details of the discovery analysis phase of the EAI evaluation [inaudible] is only in English.

There is a global evaluation of websites for acceptance of e-mail addresses in 2019. This evaluates universal acceptance compliance of the top 1000 websites in the world by sampling the practices and different develop approach to the e-mail field in forms on the web and

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testing them in practice. This document is found in Arabic, Chinese, English, French, Russian and Spanish language. Next slide, please.

Bueno. UA readiness framework is a technical guide that provides a framework for scoping universal acceptance conformance work on software applications focusing on the major components of an application to help developers more easily problem solve. Only language English and Russian.

Other is country-based evaluation of websites for acceptance of e-mail addresses in 2020. This report is a follow up to testing done in 2018 and 2019 for UASG 025. This document evaluates the acceptance rates of internationalized e-mail addresses by websites in different countries. Only English language.

And last is UA readiness of the programming and framework. This document describes the results of verifying the universal acceptance readiness of C, C#, Go, Java, JavaScript, Python 3, Rust and framework s, including the testing of internationalized e-mail. Only English language. Next slide, please.

Thank you. Bueno. Our working group is still working for a better communication between universal acceptance and our community and interested groups. Before question and answer, I invite get involved, follow, share, like and engage with the Universal Acceptance Steering Group on our social media and use the Universal Acceptance Steering Group's hashtags in relevant posts, it is #Internet4All. And join—I want to invite follow us in Twitter, LinkedIn, Facebook, join to the UA Discuss e-mail. In the screen is the link. And I invite that you report a problem if

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you find an application or webpage that is not universal acceptance ready in this link in the screen.

Thank you for your attention, and our working group still works in the next month and the next year, work hard to develop and better communication strategy. Thank you so much for your attention.

SARMAD HUSSAIN: Thank you, Lilian. We will now open the floor for any further questions the community may have. We'll request the panelists to take those questions and respond.

LILIAN DELUQUE: Don't see any question. Thank you.

SARMAD HUSSAIN: Yes, let's give everybody a minute to see if there are any questions. Please feel free to raise your hand and ask the question directly or type it in the chat. Mohamed, do we have any pending questions in the chat?

MOHAMED ELBASHIR: No, we don't have any pending questions in the chat.

DENNIS TAN TANAKA: I see a hand raised.

SARMAD HUSSAIN: Raitme, please go ahead.

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RAITME CITTERIO:

I will speak Spanish, please. Good morning. I'm from Latin America and I'm also a member of some of the UA working groups. And I wanted to share with you the efforts we've been doing at LACRALO with the support of several working groups in relation to training. Lilian is also part of another group that's involved in the Latin American initiative. And I want to share with you the vision we have in this arena.

We start this approach because of the need to integrate IDN and universal acceptance issues because Spanish has a series of complexities inherent to our language and culture which may not be shared by other places or the way they are with us. We have the Ñ letter which is not an accepted character at the IDN level and some ccTLDs in the region, the Spanish N is the letter that is part of the universal acceptance area that needs to be dealt with. And that is something we are conducting research on and creating a working group. And we have identified other variants.

In September, I had a chance to talk about UA with some ISPs in the region, in Bolivia and Paraguay specifically where they have other languages apart from Spanish which are semi-official languages, Guarani in Paraguay which they use a lot in their regional cultures.

UA does not work with for a number of technical reasons. An IDN does not work either, so this is a summation of specific problems, and so we're trying to put together courses at the following levels. One for regional ISPS on how to deal with the subject, another one for introduction to end users in our region so as to understand whether they use applications or products as end users for specific markets in

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the region to see whether they have these kind of incompatibilities, because in many major [ways that's in our] region, we have found specific examples.

First, we would like to create in this first stage awareness, and there has been a lot of collaboration in this group and LACRALO, and contribute ideas, connecting them with a theme on work access of UA globally. I'm involved mostly in technology groups, and we have been following each challenge, which can be pretty complicated to deal with, at least in technology. We expect a first stage. We're working in this first approach to have potential courses for technical introduction, for users and ISPs at the end of this year or the beginning of the next one. That is what I wanted to share with you, and also, to share good practices on the subjects. Thank you all.

DENNIS TAN TANAKA:

Raitme, I want to, on behalf of UASG, thank you very much for these comments, observations. I appreciate the enthusiasm and the willingness to start this going in the Latin American region. And thank you for reminding us that this is a problem in the Americas, especially in the Latin American regions with other languages that are spoken. The Ñ is like the central letter that [reminds us of our] heritage, and other languages as well, as you mentioned.

So yes, I have had the pleasure to have a closer look at what the LACRALO organization is doing, and I'm very supportive of you. I know UASG is also supportive of your efforts. So we look forward to working with you and the rest of the team here. I think I saw Adrian here as well.

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So yes, pretty much very excited to do this. Let's continue to move forward on this.

SARMAD HUSSAIN: Thank you. Anybody else who would want to respond to the question? Else, we can move on to the next comment or question in the chat. Mohamed.

MOHAMED ELBASHIR: Thank you, Sarmad. "There's a question from Amanda in the chat. As per UASG initial document period of Working Group Chairs and Vice Chairs was one Year? Which is already over, when the reelection will happen? We trust that this time UA community or Working group members will be free to select their Chairs and Vice Chairs by open voting instead of just leadership decisions?" End of the question.

SARMAD HUSSAIN: May I request anybody from the UASG team to respond? If not, the UASG chairs are selected for two years, and there will be election for the leadership team again which are scheduled for March of next year. I see Mark's hand. Mark.

MARK SVANCAREK: Thanks. One of the issues we've had in the past is that there's not a lot of people who put themselves forward for leadership positions, and it would be great if more people would do so. We had a particularly tough situation in the EAI working group this year when we tried to find a vice

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chair. We did have one candidate who was well accepted by the community, but he was unable to serve due to a conflict.

And then afterwards, it just became a lot of people yelling and being upset because they didn't like the other candidates, etc. It was a tough situation. If there were more candidates putting themselves forward, I think we would have more interesting elections and better community participation in the election. I ask you all, please help us with this, because last time, it was kind of an unproductive conversation with many people saying that the process was not being followed when the reality really was there were no candidates. So please support us. Thank you.

SARMAD HUSSAIN:

Thank you, Mark. Mohamed, any additional questions?

MOHAMED ELBASHIR:

Thank you, Sarmad. There's another question from Maria. "Does community working group—I guess communication working group—plan to provide some educational and marketing materials exactly about UA, EAI, IDNs (articles, video, brochures) to be shared for local stakeholders?" End of the question.

DENNIS TAN TANAKA:

I think we can show—if you can share on your screen—all the materials. UASG 005 and 007 come to mind in terms of educational materials from an introduction and a more detailed overview of universal acceptance



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which comprises all the aspects of it from IDN and EAI. At least that's from printed material.

As far as videos and brochures, brochures, we have the quick guide, and I think we are maybe short on videos. We do have the technical training videos, but I think that would be something to start with. So Maria, you can look at those assets that we have, let us know if those are sufficient or not. I think I know that you have used some of these materials and translated to Russian, but let us know what specific needs you need for your local initiatives and we can look at it.

SARMAD HUSSAIN: Thank you, Dennis. Satish, please.

SATISH BABU: Thanks, Sarmad. I was also going to mention the aspect about translating these documents into languages that the local initiatives could utilize. So we may want to consider at least some key documents. Perhaps it is good if we translate to all the languages that the local initiatives might want to use. Thank you.

SARMAD HUSSAIN: Thank you, Satish. There is also another question. There was a question in the chat on how we can start, how a local initiative can be started by organizing the community. I just wanted to add that Mohamed shared a link—See if we can share that again in the chat—on the charter for local initiatives. If you go towards the end of the charter, there's also an appendix which suggests a proposal template. So any of the community

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members who are interested in putting a local initiative together, please go through that document. It is also linked from the relevant slides which are now posted online, or you can reach us at [info@uasg.tech](mailto:info@uasg.tech) with any specific questions, and we can respond and provide [inaudible] material as well. So please look at that charter, see if you would like to formulate a group, and we'll be happy to facilitate the process and bring it to UASG for their consideration.

Okay, so I guess the time is up for this session. We would like to thank all of you for participating, would like to thank the panelists for taking the time to present the progress on UASG. We may not have been able to address all the questions or comments, but if you have any, please, again, what we will do is share all these questions and comments in the chat with UASG leadership for their further consideration. And as I shared, please feel free to reach out to us for any subsequent queries at [info@uasg.tech](mailto:info@uasg.tech), and we'll be happy to respond. Thank you again for joining, everybody, and we can close the session. Thank you.

**[END OF TRANSCRIPTION]**