
ICANN76 | CF – UA: New Internationalized Email Self Certification Guide Overview
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SEDA AKBULUT:

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MARK SVANCAREK:

Thank you, Sera. Welcome, everybody. Good morning, good evening, good afternoon. We have an exciting session for you today because we're going to tell you about something we've been working on for quite a while. The Internationalized Email Self-Certification Guide.

Next slide, please. So here's what we'll be doing today. First, I'll give you a quick reminder of what EAI is. I think most of so that'll be quick. Then we'll talk about the self-certification. Why did we do it? How do you do it? What's the guide look like and how UASG will help you? Then we're going to have feedback from some early adopters of this process. We have Nitin from XGen, Anuin from Roundcube and Harsha from Roundcube. And they're going to give you a lot of in-depth information about what they discovered when they self-certified their systems. Finally, we'll have an open discussion and questions and answers. Okay, let's take it away.

Next slide. So just a reminder, what is internationalized email? So email is always of the form a username, an @ sign and a domain name. The

username, we sometimes call that a mailbox name or a local part. If you're looking at the string, I would call it the local part. If it's a right to left script, it's written in the opposite direction, of course, the domain name on the other side, followed by an @ followed by the local part. But it's the same construction. In legacy email systems, that whole thing was ASCII. And then for a while, you could have sort of an intermediary thing where you could have an IDN and use puny code to convert it from a U label to an A label. But it was still ultimately an ASCII system. So if you look at the list of samples below, you can see the sort of things that we're talking about when we say internationalized email or EAI. We have all kinds of languages there, right to left, left to right. And the old ASCII systems like that market outlook email. Those are still supported, too.

Next slide. So what is self-certification and why are we doing it? Unfortunately, when EAI was being designed and standardized at the IETF, they realized they couldn't make it fully backwards compatible. And it has to do with the local parts and the way that legacy email defines the local parts. We don't need to go into that detail right now. But as a result, you wind up with two kinds of systems, the old legacy systems and the new internationalized systems. Those new internationalized systems have been standardized for years, but the adoption has always been held back because the customers who wanted to need it don't know how to get it. Maybe they don't know it exists. Maybe they just don't know which vendors have it. Maybe they know which vendors have it, but they can't choose between them because they don't know which features are supported and which features are not supported.

And then products and services that do support it, they're not necessarily visible to their customers. There's no way for them to advertise which features they support or don't support. If they have a comprehensive solution, they can't really advertise themselves effectively. So this is a supply and demand market problem. In universal acceptance, you often hear people talk about chicken and egg problems. This is the epitome of that. Self-certification will give the customers a consistent way to look for services and a consistent way for the system providers to make themselves known. Self-certification also should give the motivated developers and service providers an incentive to add these features and to compete with each other.

So the result -- Sorry, a little window management here. The result is to create a market for UA ready email services and the tools, because we're not just talking about sending and receiving an email. We're talking about address books and spam filters, mass mailers, all of that sort of thing. And this allows IT and procurement managers to use the scores to quantify the EAI levels that they want or need and are willing to buy.

Next slide. So we have a link. We have a URL and we also have a QR code. So here's our QR code. Next slide. Here's how you do it. It's just a few steps. It looks like the numbering changed in this version. That should be one, two, three, not one, one, one. Sorry. First thing is get the guide. There's the URL or you can use the convenient QR code. Then decide what's the scope of your project. What do you want to do? What are the features, the components, the services? Do you just want to do a web mail UI? Maybe that's all you offer. That's okay. Self-certify that. Maybe you support IMAP or you don't or you'll add that later.

That's okay. This is all about certifying what needs to be certified. You can always add features later. You can always certify additional components later.

Just tell it's just a way to tell your users what you've got. Maybe you've got a full end to end service with a mobile client. So an online service, a mobile client, maybe a web mail, maybe anti-spam. Maybe you've got the whole gamut. That's great. Certify it all. It's up to you. Remember, this is about you communicating to your customers and your customers beginning a dialogue with you.

Next, build your tests. These systems are all very different. So there are some tests that can be shared and automated, but most of them are custom and some of them are manual. That's just because every system or component is sufficiently different from each other. But that's probably okay because you probably created these exact tests when you were building and testing the system in the first place. That's how that you're RFC compliant. So then, like I said, do your tests and expect that some of this is manual testing. For some components, quite a lot of it is manual testing. But that's OK because you've probably already done those tests.

Next slide. Number four, populate those test scores into the scoring tool. We have a custom Excel spreadsheet that analyzes your scores and pops out a composite score. So you just type in whatever you've got and your overall score on a three level grade will come out. Later, we'll make this more complicated. So we're more complex and robust, I guess. It's not complicated. And that will allow us to score entire systems as opposed to individual components. Once that's done,

submit your scores to UASG tech and we will publish them. Finally, get your logo, add it to your site and your marketing materials. That's it.

Next slide. If you've been following UASG for a while, you've probably seen this slide already. This is the ranking concept that we have. A long time ago, we broke things into level one and level two. That was pretty coarse and not very helpful. Now we have three metal levels. There's a silver level, which means you can send to and receive from in the internationalized formats. And that's great. Just achieving silver is a great accomplishment. However, there are gold accomplishments as well, which include all of the silver and start to include things like hosting your own mailboxes and a variety of other advanced scores.

And then finally, there's platinum, which includes all of the gold requirements, but has a lot of other things that we think are important. Supports all the best practices. Turns on the advanced features by default. Has great documentation that explains how all of this works. So we're hoping everyone will be at least silver, but we have two other levels above that you can use to differentiate yourself.

Next slide. So if you want to get a sense for what this guide looks like and please go to the URL and download it and really take a look at it. But just a high level thing. Here's part of the table of contents. Actually, this is most of the table of contents. So you can see that we explain what EAI is and what our readiness levels are. And then we go into the individual componentized requirements. And you can see that they're broken down into MUA, MSA, MTA, of course, all of those things. But there's also breakouts for whether or not you support IMAP or POP. And then we have a section at the end, which is about email utilities and

tools. Remember, I talked about standalone address books, anti-spam, mass mailers, things like that. Then we talk about documentation and communication.

Finally, there's a list of guidelines, which are in other documents. What is the best practice for naming mailbox if you are an IT administrator, for instance? A list of definitions and glossaries and then a little more detail on the self-certification process. So that that's the scope of this document. It's pretty comprehensive.

Next slide. Here's an example of the requirements. So this is from the mail submission agent, the MSA. But the requirements for all the components look something like this. So MSA1, this is one of the most important requirements, frankly, is you have to advertise the capability to support EAI. So you must when the client connects to the server with the extended hello command, the listing of capabilities must include SMTP UTF-8 to indicate the support. So that's the sort of thing that you require for silver and above. But here's a whole bunch of other things that you'd require. The list goes on and on. But this is the format of the requirements. So you can get a sense for how individualized and specific and granular they are, which will help you with your testing.

Next slide. I don't know how well this looks on your screen. It's kind of an eye chart from where I'm sitting. But here's what the scoring tool looks like. Like I said, it's based on Excel. And so for all of those requirements that you saw on the doc, there is a row in a tab of an Excel spreadsheet. And you just populate it with pass or fail. And you can see that an overall score pops out. So in this case, we're showing a bunch of gold requirements and one platinum requirement. And this test has

passed everything but the one platinum requirement. And so the overall score for this component is gold. That's really all there is to it. You just populate your pass fail results into the tool and it will tell you what the score is for that component.

Next slide. So here's what we'll do. We will distribute the guide and the scoring tool. Just go to UASG Tech when this is ready. We'll provide technical support for the guide and the testing process. You may have questions. What does this test mean? Is this the right result? Things like that. We'll answer questions about the testing process. Am I testing the right thing? I got a score. Did I do it correctly to justify that score? We will post your results on UASG Tech. We'll provide a logo. And we will do a case study if you like. We will not do some things, though. We won't write your tests. All the tests are different. There's no way we could do that. We won't run your tests.

Again, there's just not enough commonality and we don't have the resources to do that. We will not audit your results. This is self-certification. You are attesting that you have tested and resulted in these scores. We're not going to audit you to verify if that's true. So if you respect your customers, we know that you'll be truthful on them. Finally, we will not provide financial support for the testing. This is something that you do voluntarily in order to build a market for your products and services. That's it.

Next slide. Here's some sample logo art that we're working on. These are not final. Give us your feedback on them. Next slide. And that's it. That's what the guide is. That's why we did it. That's how you do it. Next, I'd like to hand the floor over to some of the early adopters. We

have a speaker from Xgen. We have some speakers from Roundcube. They're going to tell you what their experience was and what they've learned. So with that, I'd like to hand it over to Nitin. Thanks.

NITIN WALIA:

Thank you, Mark. Good evening. Good afternoon. Good morning, everyone. As for your time zone, because we have people who are joining in online also. I'm Nitin Walia. I'm director for data action technologies. And I'm here to share you the feedback of the adoption of the EAI guide, which we have done on our product Xgen Plus.

Next slide, please. So before I show you the outcome of the adoption, just to set the context right, I want to share with you what was the need to become the EAI ready for Xgen Plus. Basically, domain names and email addresses are essential to access and communicate over the Internet. This we all agree and know. People wish to communicate into their languages. That's the reason the IDNs has been launched. And we have a digital divide which we can bridge through this EAI and IDN model. Currently, large population is out of reach and huge business potential is getting lost because of that.

Next slide, please. So Xgen has identified the need and is supporting this initiative by providing the email addresses in the users' preferred language. So we support all kind of scripts and languages and that are fully EAI compliant.

Next slide, please. We, like other service providers, we offer you the solution in all multiple ways. You can host. You can test on premises. You can buy through OEMs. You can have license. Next slide, please.

So here it is. So when we talk about the adoption of the EAI guide, there were several components which needs to be tested. And which needs to be tested very regularly. When I talk about Xgen Plus, the beauty of the product was that since we, the entire server components are built in-house, so we have several IPs around the components which require for a complete mail messaging solution. And not just that, to support the mail messaging solution, the mobile applications and the anti-spam which require was also in-house product of Xgen Plus. So we were having zero dependency on any third service provider because of which the EAI readiness can get compromised.

Next slide, please. So based on the guide which the EAI working group shared with us, we have shared this guide with our software developers and the testing team to test the product on the various components. So there are multiple components which makes a complete email server. So there were certain kind of tests which needs to be conducted. So these are the number of tests which are being done and the number of tests which we have passed. So if you will see, Xgen Plus was able to support majority of the tests which were being mentioned into the EAI test guide. And we were able to successfully conduct and complete them up to achieve the readiness of the levels which are required for the adoption of EAI.

Next slide, please. As per the self-certification guide, there were certain inspirational features also which were being required to claim the status that yes, you are a platinum level service provider. So Xgen was having those features inbuilt into it to support that component.

Next slide, please. So the outcome of the test results, the outcome comes to that we were able to achieve the platinum level status which is the highest level status in the EI self-certification guide and which makes the platform unique and readily available with the EAI support to you.

Next slide, please. So as far as the feedback is concerned, since we have spent almost four weeks in-house on this guide and tested the various components which were being asked and passing all the test levels which were being mentioned into it, as the early adopter, I can claim that yes, this is an excellent starting point for every mail service provider to adopt this EAI guide and test their email product readiness level. The guide is well drafted and it's pretty easy to implement. And this I'm claiming because we have implemented this in-house and with very nominal support, in fact no support which was being asked from the UASG or the EAI working group, our developers were able to understand the guide and were easily able to implement that in-house.

This applies for all kind of softwares, that's the beauty of this guide actually. Because any product which store and process the email messages and email addresses can test their product through this EAI guide. So it's not necessarily that if you do not have one component and you have other component, you cannot go through that. You have multiple components into it and there are multiple levels into it. So you can choose your product line and based on that, you can claim that yes, you are gold, platinum or silver, what levels it falls in.

And this concept of level actually is very unique and this provides an assistance for the procurement managers or the procurement

customers actually who are looking for the email products around the globe. Today, as a customer, anybody who wants to understand that whether it's an EAI compliant product or not, it's a very tedious task. So with the logos which UASG is now providing all the service providers, this will become very easy for the customers to identify that the product which they are buying qualifies which level.

Next slide, please. So yes, Xgen has already had certain proven stories. We have deployed EAI solutions globally, which includes the major deployment was being done with the government, which is government of Rajasthan, wherein we already have 7 million users who have been using email addresses onto IDN domain name. Same way it was with NIXI. That's a data registry of India who's providing a domain in IDN in 22 languages. And along with that, they are providing you a one email address free of cost to every domain consumer to test what EAI is for them.

Next slide, please. Sorry. So what we have here for today that anybody who is holding an IDN domain name, if they want to test what EAI is, Xgen does this ready to provide you a free testbed. You can visit the website or just email me up. We will set up a call with our tech team and we will deploy in-house if you require at your setup. If you are a registry or in any organization who want to test what EAI is, the solution is readily available for you.

Next slide, please. So that's it. Thank you. These are all my live email addresses, which you can see that Xgen is available. What are we are claiming is what visible. You can mail me on any preferred language of

your choice. And you want to communicate. All email addresses are workable and I'm approachable on them. Thank you.

SEDA AKBULUT: Thank you very much, Nitin. Now we are moving on to Anawin Pongsaboripat to get his feedback on Roundcube. Over to you.

ANAWIN PONGSABORIPAT: Thanks, Seda. Hi, everyone. My name is Anawin from Thai Network Information Center Foundation. So next slide, please. So what we have test on EAI is our own developed email server named Khon.thai. It means Thai people. So our technology is we use Roundcube, Postfix, and DopeCod. Next slide, please. Here is our test result. The table is -- thank you to Nitin that he allowed me to borrow his table to summarize the results. As you see that it's very frustrating for me that our MUA still have a lot of points, around nine points to make it pass, because we still use 1.4.4 version of Roundcube, which is not good support for EAI yet. So our plan is to update it in the 1.6.1. So now in pilot of testing and implement it. So I hope that after we implement it, I think we have more support on the MUA. But for MSA, MTA, MDA, I think that we have no issue on that. We pass all the tests.

Next slide, please Seda. For the feedback, that first feedback that I agree with Nitin that this is a good start for our email service provider who want to know which EAI that they already support. But I think in another way that if I pass, as you see my result that I fail some tests, but I pass all the goal and platinum level, but I fail in the single level. I fail in a single level, what EAI level on that component I should be. It's

really, I already asked in the EAI group, so that they may help me on this. And also that when I test it, I'm not sure that I test it in the correct way or not when I pass the test. Because there is in some way, in some component, there is many way to test it. Some ways I can make it fail, some way I can make it pass. So when I make it pass, I think, it passed. It's not fail. So maybe we in the guide, this is a feedback from my developer that they said that we should have some example that how to test in general, that which is the correct way to test in each component.

And also that in our developer team, we have some problem that they cannot understand English fully, fully understanding English. Maybe it will be good that we can translate this guide into our local language in Thai, in India, in Russia, in China, so that it make it easier to reach our local developer or local -- So for the next step for our plan, we try to develop our service to meet the goal and also we promote this guide to our local email service provider and developer that try to run the test. Thank you.

SEDA AKBULUT:

Thank you very much, Anawin. Now we are moving on to our UA local initiative in Sri Lanka, Harsha will be with us to give feedback on roundcube, Dovecode, Postfix and MUTT. Harsha please.

HARSHA WIJAYAWARDHANA:

So greetings from Sri Lanka. Can you go to the next slide please? Next slide. Sri Lanka, we just joined the right now we have two EAI ready email platforms again that what we use Roundcube, Dovecot and

Postfix and also that I checked several others. So one is a MUTT that I just want to see that how it actually gauged against the certification guide. So the both servers run on CENTOS 9 OS. So we also have several ports open you can see we got the 25, 110, 143, 993, 995 everything. So as you know that Roundcube is actually IMAP client. So what we did was, our team we devised tests for each component and then we ran against the certification guide. So it was a good eye opener.

Can you go to the next slide please? Next slide. So basically, when we looked at the MTA, the Postfix it passed with flying colors. However, there were a few issues with the Dovecot. So actually, it failed certain tests. So what we felt was actually the Dovecot was the one which was which actually had issues. So there are quite a bit of issues with the Dovecot. Based on the guideline we devised, what we did was actually we devised the tests and also we recorded. So what we did was whatever the results we have recorded with the UASG as well. So now what we also realized was the IMAP Dovecot IMAP version is in version one. So we need a improvement on that so to the version two.

So we are thinking of actually building further support for that for the UTF-8 support with the IMAP. The Dovecot does not have the UTF-8 but it's a there is the Roundcube for us actually we use a 1.6.1 and so it supports UTF-8 email address but there are some bugs there were like few bugs especially with the U-label, with IDNS there are some bugs so but with the puny code actually, it works.

Can I have the next slide please. So these are the test actually the results fairly basically we thought that a round cube would be like a gold but though card actually I have to give silver so we and the MT for the

Postfix is really -- I was really shocked to find it did really well. Next slide please. These are some of the screenshots and you can see the round cube is actually localized also at the bottom that you can see the singhala email addresses for that that is for the testing email address.

So the next slide please. And when it came to the linux email it also passed with the flying colors so and in fact I did not use the IMAP or the pop so it actually I would say it's platinum and so with the IMAP and the POP basically because of the round, actually we got the same results. So we have the second platform now it's up and running that this platform is going to be for the public use so it's a UTF-8 and so we have two domain names that is -- three domain names actually one in english and singhala we call it a couple [Foreign language 00:35:09] in Tamil. So these platforms will be launched on the Global Universal Acceptance Day. Thank you.

HARSHA WIJAYAWARDHANA: So these are my email, by the way, the next slide. So this is the map actually. So that's basically it. Thank you very much.

MARK SVANCAREK: Thank you all for our early adopters. I just wanted to have a little bit of a discussion before we get into the open questions and answers. One, I wanted to say to Anawin, welcome to our community. I know you had some issues figuring out, are we testing these things, right? That is the exact kind of question where we can provide technical support. So I hope that you will reach out to the team and we'll clarify those things. Regarding the scoring in the guide, I hope that it's clear what it means

to evaluate an entire system. But some of that logic is in the scoring tool, because that way it's more clear what the logic will be. And I recognize your frustration that you passed a bunch of platinum tests, but a single failed silver test didn't give you the score that you wanted. So let's work on that together.

Something I wanted to mention to our presenters, something I wanted to ask our presenters about is IDNA. So people in the universal acceptance community are well aware that there are two versions of IDNA. IDNA 2003 and IDNA 2008, which is the preferred one. If you look at UASG guidelines, support for IDNA 2008 is very important. However, we encountered systems that only support IDNA 2003, and that had some implications for the scoring guide and also for some of our tests. I don't know if Harsha wants to talk about the impact that it had on Sinhala, but if you could just quickly mention that, I think it would be of interest to our audience.

UNKNOWN SPEAKER:

Thanks, Mark. So this is a quite important thing when it comes to IDNA 2008. Sinhala, basically, even when you write the country's name in Sinhala, so we have zero with China. You know that was not supported in IDNA 2003. So that you can't, like when you write Sri, for instance, there is a bottom part called Rakhara in Sinhala, which is actually used with zero with China. So that was not supported. So therefore, now what has happened actually, even in the ccTLD, with the IDNA ccTLD, which is actually Dot Lanka, so the Sri has been dropped. So we worked fairly, there are about 10% of the words, especially the Sanskrit originated ones, that we have this zero with China. And so those words,

some of those actually, almost all of them, we have issues with the domain names.

The second level, and we don't use them for LGR, that actually we eliminated them totally. So they're not there. Like if you want to say something like truth.lk, truth actually in Sinhala is satya, which uses again a zero with China. So that cannot, I mean, if you don't use IDNA 2008, you don't see, it does not render. So we need to issue the word without zero with China and with zero with China. So we are now issuing it right now. So that's basically the nutshell Mark.

MARK SVANCAREK:

Thanks for clarifying that. And so the point is that we grudgingly had to accept IDNA 2003 for our silver level. IDNA 2008 is our gold level, not our silver level. And that means that some languages like Sinhala require a gold level system to support. And that's the sort of information that it's important to use the self-certification guide for if you are a procurement office and you have those requirements, it's good to know that you will be looking for a gold level certification in order to support your needs. Hopefully, that was clear.

We're almost at the top of the hour. How about we open up for some questions. So questions that we often discuss are how to facilitate adoption. We have some tender and contractual guidance. Sorry, tender and contractual documents guidance that explains to you how do you teach your procurement office to buy the right things, to buy

things that have universal acceptance. It also includes IPv6 and DNSSEC.

We've already shared the success stories of adoption in India. If you want to know more about what motivated XGenPlus or other people like, say, Microsoft, I am from Microsoft, we can explain that. But those are just suggestions. What questions do we have from the audience? Go ahead.

NITIN WALIA:

Thank you, Mark. So when we talk about the adoption of the UAC-009 Quick Guide to the Tenders and Contractual Documents, I think it's a very important document which has been circulated by UAC. And specifically, this is very important for the government, when I talk about GAG and other members out here, because right now, whenever the new purchase is happening, we all seek that the components, software or hardware which we are buying should be future ready. So that means that the investment which has been made by an organization into any component should be future ready. When we talk about EAI or IDN, that's the future, actually, which we don't see today. But yes, that's coming in.

And same way, like for IPv6 and DNSSEC, the purchase managers are putting into the documents, because majority of the government procurements happen through online tenders and all those stuff. So normally, the conditions are there, the specifications are there, which every vendor has to meet. Same way, the reference document which is there by UASG also mention about the readiness of UA into that particular software application and readiness of EAI. So if the

government entities specifically start putting that conditions into their tender document, it will motivate the service providers, it will motivate the software vendors to make their applications UA and EAI ready. Because that will create a demand from the market actually.

Right now, when we talk about the demand and supply game, or why the service providers are not volunteering to make their systems EAI ready or IDN ready, the problem we generally see is that people say there is no demand of IDN in the market. But demand don't generate its own. Demand needs to be generated. And there must be several thoughts behind issuing the domain names in IDN languages. And when we all want to communicate, we generally prefer to communicate into our local languages. But that digital divide is not getting fulfilled when we talk about the internet world. And that's the reason that the global reports claims, if I talk about India, 89% of the population cannot read or write in English. So that means they are deprived from internet. So the actual use of internet is still lying for 89% of the people.

So see the potential and huge opportunity which is lying out. So I think this guide is going to definitely help everyone and if it's widely adopted. I have seen this happening in India actually. That multiple tenders which have been issued by banks, multiple tenders which are issued by the government agencies, state government, central government, have started adopting it. And they are now putting the USD009 conditions in the tender document, specifically that the vendor should meet these conditions if they want to supply the product to the government of India. So I think it's a good standpoint and other countries should take this forward.

MARK SVANCAREK: Thanks, Nitin. Are there any other questions from the audience?

SEDA AKBULUT: We have some questions in the chat, actually. Will the slides be available at the end of this session from Raitme Citterio? Yes, the slides will be uploaded on the schedule page on this session, right after the session is ended. And another question is from Betty Fausta. With the guide, If I'm Platinum, will I be impacted by Microsoft discrimination tools about sending an email to all Microsoft email like Outlook, Office 365, Hotmail as a practitioner? We observe a real problem to communicate with Microsoft email servers.

MARK SVANCAREK: I don't see that question in the chat. Could you read it again? I want to make sure I understood it.

SEDA AKBULUT: Yes, this is the question in the Q&A pod.

MARK SVANCAREK: Oh, here, let me open the Q&A pod. Sorry.

SEDA AKBULUT: Yes, from Betty Fausta. The question goes with the guide, If I'm Platinum, will I be impacted by Microsoft discrimination tools about

sending an email to all Microsoft email like Outlook, Office 365, Hotmail as a practitioner? We observe a real problem to communicate with Microsoft email servers.

MARK SVANCAREK:

So as a Microsoft rep, I will attempt to answer that question. It's possible that there is a bug. As we change our services, sometimes we introduce bugs. A few years ago, McKaylee Naylan [ph], in fact, discovered a bug that we had in our iPhone or our Mac implementation, and we reported it and fixed it. A common problem that people have, though, with new gTLDs, whether they're IDNs or not, is related to the reputation systems. So new gTLDs sometimes will go through additional quarantine and they'll have to be added to a list sometimes so that they'll be trusted faster. Sometimes people feel like that that indicates that it's not actually supported. That's not the case. It's just that these gTLDs may not have developed enough reputation yet.

That's something to contact your system administrator about so that they can they can remediate it. I think there is a page online that teaches you how to do it. But no, the Microsoft system should support all email addresses equally. And if you're not encountering that, let us know and we'll figure it out. Thanks.

SEDA AKBULUT:

Thank you, Mark.

MARK SVANCAREK:

Previous slide that Seda had up there just reminds us that there are some case studies. So just check those out. There's a link in the chat. Okay, next. Okay, here's the call to action. Check for EAI support when purchasing a new email system or subscribing to a service. Check the email systems level, whether it's silver, gold, and platinum. Make sure that it supports what you need. Check for that level logo on their website or their product literature. And I have an additional call to action, mainly for people from GAC. As you heard earlier, procurement is important because we have to generate demand and governments and public services can play a big role in that.

So we saw that in India, there was a lot of momentum generated in the state of Rajasthan. Once they started requiring EAI in their email services, it spread to the other states. This could happen anywhere. And if you have any influence over this with a big industry in your area or with a government agency in your area, please make them aware of this and encourage them to change their procurement policies to support EAI, IPv6, and DNSSEC. Thanks. I see another question. In the LIC region, we face a major problem since some letters of the non-ASCII alphabet are supported. Will these tests work in the Spanish alphabet? Yes, they will work in any of the Unicode language sets.

SEDA AKBULUT:

We will now run a quick poll to start discussion on some other topics. Can we start the poll? So you will see the poll questions in your Zoom panel. If you buy a new email system today, what EAI certification level do you buy for the new email system? Platinum, gold, silver, or no EAI support required? The second question goes, how much more would

you pay for that EAI certification level? Double price, 50% more, 10% more, or will not pay extra for EAI? And why? We'll give a minute for everyone to respond.

JIM DELAHUNT: Seda, this is Jim DeLaHunt. May I add some clarification?

SEDA AKBULUT: Yes, Jim, please go ahead.

JIM DELAHUNT: My name is Jim. I am on the EAI working group. And the motive behind this poll question is for this kind of market research. Imagine that you were in charge of buying the email system that your organization currently uses, and you had a proper budget for that. If you could put yourself in the mind of your organization, what would they choose about what kind of email system to get? The idea is to understand a little bit about what organizations want with regard to EAI support. Thank you.

SEDA AKBULUT: Thank you for the clarification. So at the moment, only 30% of the participants have responded. So let's give a few more seconds, maybe. That's increasing. Let's give maybe half a minute. So only 40% participated, so I'm ending the poll in the interest of time.

MARK SVANCAREK: Please go ahead.

SEDA AKBULUT: So I'm going to read the results. I hope you can see it on your Zoom panel. So for the first question, what EAI certification level do you buy for the new email system? 48% responded as gold. 33% responded as platinum. 14% accounted for silver. And 5% says no EAI support required. For the second question, how much more would you pay? How much more would you pay for the EAI certification level? 48% responded as 10% more. And then 24% responded as both zero and 50% more. We have to 24%. And then 5% accounts for double price.

So you can also share the reasons why in the chat. Thank you for your participation on this poll. And we have another poll actually now. If you are also in the room now, you can also see the questions in your Zoom. Can we run the second poll? Now the second poll appeared, I hope, in your Zoom. Which terminology is best? Address like, user example.com. ASCII addresses, legacy addresses, limited Latin addresses, or other? If other, please provide suggestions in the chat. And the second question is, addresses like an email address in non-English characters and email-tests, universalacceptance-tests.international are EAI addresses, Unicode addresses, globally inclusive addresses, or if you have any other suggestions, please type in the chat or raise your hand.

JIM DELAHUNT: Seda this is Jim DelaHunt. May I offer some background to this question also?

SEDA AKBULUT: Yes, please, Jim.

JIM DELAHUNT: This is Jim DelaHunt again a member of the EAI working group. This poll asks you to help us with a problem we're having. We need words to talk about the old kind of email addresses and the new kind of email addresses. And we have used different words and we're trying to get some feedback on what words make the most sense. So, the first question is asking, what do we call that old kind of email address? And question two is, what do we call the new kind of email addresses that can include Latin script or any script at all? The purpose is to communicate to the general public, to purchasing managers, to customers, to product developers, what would be easily communicating terms. So, we're interested in your opinions. Again, this is kind of a market research survey. Any ideas you have would help us out greatly. Thank you.

MARK SVANCAREK: Thanks, Jim. And this is Mark. And to clarify, I used to be an engineer. I know what I want to call these things. I see John, who helped write the RFCs, says, well, this is what the standards say. And I find that when I use the engineering terms that people, their eyes sort of cloud over, so it's not actually helpful to solve this market problem. So, we're just looking for your insights. If you'd rather us use the RFC terms, that's fine. Otherwise, help us understand what helps you to sell this to the people who need to sell it.

SEDA AKBULUT:

Now -- 38, sorry, now it became, well, it's increasing quite high, so 42% participated. Let's give some more time. I'm sharing the results now for the poll. I hope you can see it. So, for the first question, addresses like user at example.com, what should we say? 76% said ASCII addresses. 12% says legacy addresses. 8% limited Latin addresses. And 4% had some suggestions in the chat. I see Daniel Fink says global addresses. John Carlson says non-ASCII addresses or SMTP UTF-8 addresses. And the letter is what the standard says. And for the second question, addresses like as shown here, 52% says EAI addresses, 24% globally inclusive addresses, 16% Unicode addresses, and 8% suggested their comments in the chat. Thank you for your participation. So any comments from Mark or our panelists on the answers, please feel free.

NITIN WALIA:

Thank you, Seda. So before we close this, I think there's a question in the chat room, which is by Nabil. This is regarding the anti-spams, which he's talking about that the spam filters and the antiviruses blocks quarantine or blocks or quarantine the email that contains non-Latin scripts. So Nabil, that's the problem area actually, because the anti-spam or the spam filters, until unless they are not EAI ready, for them, they treat them as a junk characters actually. So, for them, it is a garbage in, garbage out. So anything which is coming, they cannot understand, and they treat it as spam or block it as a spam. So once they become EAI ready, or once they make their applications EAI ready, the issue would be resolved.

And I think this has been seen in majority of the anti-spams, be it our Ironport, Barakudar, anything which majority of the people uses, that the support for the EAI is still not available. And that's the reason when you use Roundcube or any other email application, they use it without the anti-spam support, which is workable right now, because you have very less spams coming in, in case of an IDN domain name, because it's not pretty easy to, for an application to recognize and send the spams or broadcast the spams onto the IDN domain names, because they are not widely used. But once they, yes, once they are in wide adoption, definitely the scenario will come and wherein the issue of anti-spam will pop in.

And that's the reason my slide I mentioned that, the reason why Aixin was able to give end-to-end solution was because we were having our own anti-spam. We were having zero dependency on any other third-party anti-spam. So the anti-spam product, which is Spamjadu, is fully EAI compliant. So when your email hits to an AMX gateway, even if it's coming from an EAI email address, it will identify that it's coming from an EAI email address and it will not treat it as a junk character and will not block that email. So that's an issue of the legacy of the anti-spams, which just needs to be corrected actually by the anti-spam providers. Thank you.

SEDA AKBULUT:

Thank you, Nitin. Now we open the floor to questions from our participants on-site and online. We have some new suggestions coming up in the chat. Legacy addresses gives incentive to adopt global ones. So global addresses makes attractive. I see no questions or hands in

chat. From John Carlson, if a system supports male local parts in say three languages as in the Sri Lankan case, what happens to incoming messages in some very different scripts? Would you like to answer this Harsha or anyone in the panel?

HARSHA WIJAYAWARDHANA: Is it okay? So, well, if I understand the question that what we have done is now email.lk and two other ccTLD domain names in single and Tamil, they are basically routed to the same account. So if the SMTP UTF-8 is on and if it's shake hand, so there is no issue at all. So that it will come to the same mailbox. So that's the idea because when we do that in Sri Lanka, because most of the people seem to, I mean, they're comfortable with the single and Tamil. I mean, they're comfortable and they love it, but the point is actually, basically they don't have an issue with the Latin letters. So they would prefer to have these convergence, I think. So we yet to see that. I mean, we'll know that once this Bean platform is launched, you will definitely know how it works.

MARK SVANCAREK: Jim has his hand up and then I'll comment as well. Thanks, Harsha.

JIM DELAHUNT: Hello, this is Jim DelaHunt of the EAI working group responding to the question about if a system supports male local parts in say three languages, what happens in incoming messages in some very different script? My belief is the intent of silver level EAI support is that the email system should happily accept email addresses, messages from email

addresses in any script, display them as best their OS allows, and then be able to reply to that same address. There's not a requirement that the UI of the application support every possible language that email addresses might come in.

We can imagine that some user who reads, say, three languages of the Sri Lankan email system and gets the message in Arabic would be very confused by the address in Arabic and not be able to read it because it's a different script. Or that user might actually read Arabic very well and they just happened to be using a Sri Lankan system. So the best we can say is that the application has to be able to receive the message without breaking and be able to reply to the message without breaking.

Being able to handle lots of different languages as well as a native application is more a matter of platinum level aspirational support. There's a follow-up. I'm not sure I've answered, read the follow-up. I'm Chinese, Russian, local parts of ancient Hittite, concern about clarity or replies. I think I may not have answered the question and I'm not quite sure what the answer is. So I'll hand it over to Mark.

MARK SVANCAREK:

Thanks, Jim, you said almost everything that I was going to say. I think to John's points, assuming there's no underlying operating system problem, say you support a version of IDNA that doesn't support a certain script or you don't have the right language packs installed or something like that, then all of this should just work clearly. There should be no complication if it's a script that the user has never encountered before. That said, a lot of email clients will throw up what's called a tool tip, which would say something like, you don't

usually get something in this script, learn more. Just to alert the user that there might be something unusual going on. But as Jim said, it should just work. You should be able to receive; you should be able to send.

And this is actually similar to Kalpesh's question, I think. Since all the scripts should be supported, I'm not sure what his question was. If you're talking about support for various dialects, if they're supported in Unicode, that should work in all the local parts cleanly. If you're talking about top level domains and label generation, that's a separate question.

SEDA AKBULUT:

Thank you. So John Carlson added that my question is not about your receiving latency scripts, decorated or not, but say Chinese, Russian, local parts in ancient Hittites, and I'm more concerned about clarity or replies.

MARK SVANCAREK:

Hopefully we responded to that one.

SEDA AKBULUT:

And there is another question from Kalpesh Choudhary. Is there any plan to include local dialectics which have unique scripts in the area of universal acceptance? And if yes, then how it will be channelized?

MARK SVANCAREK: I think I got to that too. If it's supported in Unicode, it should be supported everywhere. We don't have control over label generation of TLDs.

SEDA AKBULUT: John raised his hand, but then, John, do you have any other questions or comments?

JOHN LEVINE: I don't know if it's worth pushing this further, but first of all, to say that the domain names are fine, is easy because IDNA involves in encoding those domain names. That's unambiguous, especially in IDNA 2008, as distinct by IDNA 2003 or the UTS-46 standard. But when it gets to local parts, there are many, many ways to follow up a local part.

And part of the purpose of the questions is to tease out whether at the MUA level, the user agent facing the user, these things are really competent and easy to use and handle in all scripts or in ones which are suited for a particular country or area or region or handful of languages. And it should all work because it's all in Unicode, has been proven over and over again in other areas with Unicode to be not quite good enough, unless it's a very sophisticated programming and moderately sophisticated users. So that was the reason for the questions.

MARK SVANCAREK: Okay, thanks, John. Thanks for clarifying that. It is true that having too much faith on certain implementations is probably foolhardy. I'm not

sure how much of that we can capture in the self-certification guide, I guess, is what I'm saying.

JOHN LEVINE:

And part of my concern, Mark, is the self-certification guide from the last time I looked through it, looks, shall we say, excessively optimistic on this point and some cautions or qualifications might be in order and as well as some more detail than I got the impression you were looking at for just exactly what is being supported.

MARK SVANCAREK:

Okay, good feedback. If you have any examples I could work from, I appreciate contributions.

JIM DELAHUNT:

This is Jim DelaHunt. John, I think I hear what you're saying now. You're thinking more about the local part than the domain name part of an email address. And the local part has a lot of interior syntax that the email specifications talk about. And those specifications were developed with ASCII in mind. And so when we put local parts in ancient Hittite, the conventions may not hold. And things may fall apart.

I think that's a really interesting point about email address internationalization in general. As we push the boundaries, we're going to discover weak points in the specifications and in implementations. If you have examples, if you could find a way to email them to the UA Discuss list or to the EAI Working Group list or to the support email

address at our EAI certification page, it would be really interesting to have specific examples so we can see what will break and how.

One example I'm thinking of is email addresses entirely in Arabic script where the bidirectional algorithm causes the parts to get mixed up unpredictably. So you can't really tell from reading a printed email address, which is the local part and which is the domain name part. And that's really a bad interaction between the email address syntax and the Bidi algorithm. So there may well be places like that and we will discover them by getting into trouble with them.

JOHN LEVINE:

There are Jim, a bunch of places like that and to push that a little further, the specifications, it may have been stupid and naive on our part, but it's a little late now. Or the local part of one of those, of one of those non-ASCII local parts. If you want to start with the Arabic example, then look at that Arabic example in the context of a local part, which is seriously mixed script with left to right or right to left and neutral characters interspersed. And if you think the cases with the left-hand side getting confused with the right hand side are bad in the Arabic only case, those other cases get far, far worse. The Bidi cases are not the only ones, but they're a fairly good example of how this area is, shall we say trap inviting?

MARK SVANCAREK:

I was thinking about that similar example where you're mixing the old ASCII characters in with your Arabic characters for, where the local part has a mixture of them, ensuring that that actually is legible is a roll of

the dice at this point. Some platforms support it and I've encountered others that just crash.

JOHN LEVINE:

Right, Mark. And MUA authors have become over the years and because of lots of documentation of Bidi traps, fairly sensitive to, for example, the mixed Arabic and non-decorated Latin combinations. But if it starts being mixed Arabic and Chinese or mixed Arabic and something else, which is very much not Latin or different set of words, Devanagari would be another good example, things get much worse.

MARK SVANCAREK:

I once saw a mixed Arabic local part rendered as Chinese. So the underlying thing was still correct, but the way that it was presented to the user was utterly confusing.

SEDA AKBULUT:

Thank you, Mark and John. So we are over time now, but before we close, we can have some just final words from each of you, if you have.

NITIN WALIA:

Thank you, Seda. Just one thing, Mark, the discussion with you and John was having, when we are talking about the local part and the domain part, generally the recommendation says that mixed scripting should not be allowed by the service providers so that this confusion can be avoided. You cannot have French in the local part and in your domain part, you're talking about Arabic. So normally the mixed

scripting should be avoided, which is a regular practice. However, a few of the providers are not still adopting that, but generally it should be the regular practice. Thank you.

MARK SVANCAREK:

Thanks for clarifying that, Nitin. We do have a guidance document that goes directly to this. We have no control over the way that people create email addresses or mailboxes within their systems that they host, but we have some guidance presented that's like that. In an old system, we'd say, don't change case within the lower part because user will be confused even though it's RFC compliant. So there's general guidance that we've extended to the internationalized email address as well.

SEDA AKBULUT:

All right, thank you everyone for joining and listening and for your contribution. For further discussion, please feel free to join the Universal Acceptance EAI Working Group. I have shared the link in the chat and we look forward to your participation on how to promote the guide more broadly. Thanks a lot. And we can now stop the recording.

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