ABU DHABI - ICANN GDD: Universal Acceptance Steering Group Status Update to the Community

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ABU DHABI – ICANN GDD: Universal Acceptance Steering Group Status Update to the Community Monday, October 30, 2017 – 10:30 to 12:00 GST ICANN60 | Abu Dhabi, United Arab Emirates

**UNKNOWN SPEAKER:** 

This is the ICANN60, ICANN GDD Universal Acceptance Steering Group Status Update to the Community on the 30<sup>th</sup> of October, 2017, 10:30-12:00 in Capitol Suite 7.

DON HOLLANDER:

Good morning, everyone. This is the Universal Acceptance Steering Group Report to the Community. If you're expecting the room that has free donuts at the end of the meeting, this is not the place unless Mason has some. But we do have prizes for people who ask questions at the end of the session; so one prize per person, and we'll start probably in about a minute or two minutes after the top of the hour.

RAM MOHAN:

Good morning, welcome to the public session of the Universal Acceptance Steering Group. My name is Ram Mohan, I'm the chair of the Universal Acceptance Steering group, and I'm so pleased to see so many of you who are here who've been interested, involved for a while. We're here to do several things, if I may ask everyone to come and have a seat; we're here to do

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several things, we're here to update you on the work that the Universal Acceptance Steering Group has been doing but we're also here to solicit your feedback and your input on where we are going, and whether you think that's the right direction, and to also ask for your help in furthering the goals of Universal Acceptance. If you could please go to the next slide.

Thank you. So just for a level set, let's talk about some definitions. What is Universal Acceptance, and what are we really trying to do in the Steering Group? A couple of things; the Universal Acceptance Steering Group started off as a community initiative several years ago.

I was in a room speaking to several folks about the problems that TLD's have getting accepted on the internet with both internationalized e-mail addresses as well as on websites, but just domain names, and before you knew it, there was a group of other interested folks who came together from various segments, registries, registrars, ISP's, folks who are interested in IDN's etcetera came together and we said, "This is a really important problem, and it needs visibility. It needs also some definitions," because we were talking about Universal Acceptance, and at the same time there were other folks who were talking about universal awareness. There were lots of terms that they were all getting merged one with the other.





So the Universal Acceptance Steering Group got put together, it's all volunteers, and the very first iteration of it, our idea, was let's get interested people together and then we will do the work. We tried that for about a year; very little work got done. Because we spent most of our time trying to figure out how to do the work, rather than doing the work. And we soon realized that what we, from the community, what we were actually pretty good at was to understand the problem space, and to set a definition of where it needs to go. But to actually do the research, to do the outreach, to do the mitigation, we needed specific resources, so we approached ICANN and ICANN has been funding this effort for the last two and a half, three years now.

One of the first things that the UASG has done has been to put together a set of definitions. The UASG does its work in two or three different ways; the first thing that the UASG does, most of the work is done on the e-mail and on the lists. We hold workshops and we hold public forums like this, and we also hold specific topic oriented face-to-face meetings from time to time, so we've had a meeting on e-mail address internationalization, for example. We've had specific meetings on how to improve acceptance in web sites, things like that.





But the actual output of the Universal Acceptance Steering Group is not the kinds of things that we're doing; we don't talk about the output, we actually get reports written, we have documents and we have a numbered series of documents. If you go to UASG.tech, and you look on that site, you will find the list of documents and we have more than a dozen documents that we've actually written.

So first to some definitions; what is "Universal Acceptance?" It's the idea that all applications accept all domain names, regardless of the length of the domain name, the character set of the domain name is expressed in, or the amount of time that the domain name has been in the route. And e-mail address internationalization, or EAI, you have to have acronyms, right? That's an important ICANN tradition. So EAI is the idea that all domain names, and all mailbox names work on all e-mail software and services. So when we say "all mailbox names," what we're talking about is everything, including the characters to the left of the @ symbol; everything expressed in a local character set, or in a Unicode character set should be accepted, should work, and it should be possible for me to write something that is in right to left script and be able to be received in another mail system that fundamentally is in a symbolic script for example. Next slide please.





So what we're really trying to do here today in the public forum are the things that are up on the screen. The status report piece of it we're going to spend just a little bit of time because from the last time we came and reported to you quite a lot of work has been done. And we want to share with you not only what work has been done, but also what work is currently on our plate, what are we currently working on, and Don will share with you some of the challenges that we're facing as we go about doing this work.

We also have Lars here, who is the coordinator, one of the cocoordinators of the community outreach component of the UASG's work to give you an update of what we have been doing in that area. And again Lars will share with you the challenges that we have been facing there and ask for your ideas and your opinions on what we can do better in that area.

Mark Svancarek is sitting right here next to me, and Mark is the co-coordinator of the internationalized e-mail addresses component, the EAI piece, and he'll provide an update in that area. And then Don will take us through the evaluation studies that we have going, and one of the most fun parts of the UASG public forum sessions that we've had for the last year and a half, two years, has been to have Sig come and share with us the ICANN story; the evolution of Universal Acceptance at ICANN.





The last time I remember Sig was sharing about his adventures with Salesforce and how to get Salesforce to get UA ready, and Sig and ICANN have also shared with us some draft templates of vendor forms that you put together so that you make sure that the software vendors in your company as you contract software vendors, what are the kinds of terms, what are the kinds of requirements you ought to ask when you want them to be UA ready. So there'll be the next chapter in that saga will be disclosed, opened up for us today.

So with that, let me hand this off to Don Hollander who keeps us all in line and has really been a key part of why the UASG's work is actually getting done. Don.

DON HOLLANDER:

Thanks very much, Ram. So nice to see a big crowd; particularly nice to see faces that are not familiar. My name is Don Hollander; I live in New Zealand, and I'm the helper with the UASG trying to make things go forward. In terms of how we run today, if you could note your questions and save them for the end, and we do have some prizes for people who ask questions. Often we'll have chocolate, but decided this time we're upgrading to something far more interesting and longer lasting.



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So just a status report on the community, show of hands if you are not a subscriber to the UASG discuss list? That's three. Wendy will be shortly. So most of you have a sense as to what we're doing, so next slide please.

This indicates a snapshot of the community; we've got about 272 and after today with Wendy, it'll be 273 members of the UA discuss list from more than 150 organizations. We have another working list; UA-EAI for people who are actual practitioners or want to be practitioners of EAI, or people who have expertise that are specific interest in the topic. And there's about 35 members there from 26 different organizations.

**BARRY LEIBA:** 

Don, it's Barry, how many subscribers for either of those are subscribed with non-ASCII e-mail addresses?

DON HOLLANDER:

None, and the reason is, we use Mailman as our mailing list application, and that service is provided by ICANN IT; Mailman is alleged to be EAI ready. The reports that I'm hearing from the IETF is that it's alleged to be EAI ready and they're testing it out for us. So as soon as we get a positive note from the IETF and we can convince ICANN to make that move, then we will be EAI





ready in our mailing list. So we do try to eat our own dog food; I don't know if that's an American expression?

So if you're not subscribed to the UA discuss list and you want to be, you can go to UASG.tech/subscribe and follow the instructions. And all of the material that I'll be talking to and about is published on UASG.tech, so this is another one of the ways that we do our own stuff is that we are using a new TLD. Next slide please.

So, last week or the week before we sent out a status report to the community and for those of you who didn't read it, that's what I'll be basically covering. For those of you that have read it, you can continue with checking your e-mails and Facebook pages. But since our last community gathering which was in March in Copenhagen, we've done a few things.

So we have a number of documents; UASG004 is our use case, this is where we list real-live working examples that people can use for their own testing, so we have a bunch of different domain names, and each of those domain names has a website associated with it. We have a bunch of e-mail addresses; we have <a href="mailto:ASCII@ASCII.new">ASCII@ASCII.long</a>, and IDN.ASCII, and ASCII.IDN, and right to left, and so forth.



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And UASG004 has been expanded to include e-mail addresses that are operated by multiple e-mail platforms, so we have some that are operated by Coremail in China, some that are operated by XTM+ out of India, and some that are operated by [inaudible] in Saudi Arabia. We also updated a quick guide to linkification based on discussions that we had in Seattle in March, we updated a quick guide to EAI.

RAM MOHAN:

Sorry to interrupt; can you do a quick show of hands whether people know what linkification is?

DON HOLLANDER:

Let's have a quick show of hands to see who knows what linkification is? So linkification is the idea when you type something into social media app, particularly a а communications one such as LIME, which is very popular in Thailand, or Skype, people have heard of Skype, or Facebook, you might of heard of Facebook. Anyway, when you type in a string into your messaging thing and the string looks like it ought to be a domain name, does the application actually recognize it as a domain name and create a link so that the recipient can just tap it and go to where they want to go.





So that's the concept of linkification; we developed a quick guide to that last year, we revised it earlier this year. And we're actually doing an evaluation at the moment. We're looking at about 20 different very popular social media applications and we're running a test suite of 20 or 25 different strings to see whether they work or whether they don't.

We published a quick guide, a CIO's guide to Universal Acceptance and this is targeted at CIO's, so that they have a blueprint, a road map that they can use to plan their own investigation into getting themselves universal ready. So that was done by the i2 Coalition and Eco with some input, including some input from ICANN IT who has been pursuing this as well.

And just last month, we published UASG18 which is a programming evaluation criteria. We thought this was going to be a three to four page document, we started with a three to four page document, we exercised it and we found that it wasn't very good, so now we have a significantly longer document; something akin to 40 pages with over 100 different test cases. Next please.

We've done a number of studies; we produced a White Paper on Universal Acceptance that was launched in April of this year. A reasonable amount of global coverage on it, this was built akin to the ICANN "Greasing the Wheels" paper that was published a





few years ago. We're looking at the business -- the social, economic and cultural benefits of organizations being UA ready; the key feature was that there's roughly an extra \$10 billion a year in annual economic activity expected and many millions of additional users expected from applications becoming UA ready. Not that any one application will generate an extra \$10 billion, but that sort of concept.

We produced a report on browsers, we ran an exercise where we looked at the most popular browsers and we ran them against our use cases to see if they behaved as expected. Generally the answer was, most of the time. One browser actually passed all of our tests; that was Internet Explorer. And everybody was surprised at that, including Microsoft, but it passed all of our criteria. The biggest challenges that we saw was the treatment of the open dot, our documentation and the IDNA2003 specs say that open dot should be treated as a closed dot in terms of labeled delimiters, and many failed that, and then a few also did not display the right to left scripts in the correct right to left order. But other than that, most were good.

When we first started this exercise, one of the things we found was new top level domains when entered into an address bar resulted in a search, as opposed to going to a specific website.





And we didn't see any of that anymore. So that's anecdotal progress.

We also produced a report on websites and how UA ready they are, so we took a list of the top thousand or so websites of the world and we tried to register with them using seven or so different varieties of e-mail addresses, and we reported the results there. So the short answer there is, there is a need for the Universal Acceptance Steering Group. We also used that report to look under the hood of some common, some of the websites to examine why some of them worked and why some of them didn't work, so that appendix is very good reading I think for people who are technically inclined.

And then pending we have two reports, as I said, the linkification evaluation is underway, and we are in contract discussions, actually more than discussions; we're just waiting for signatures for somebody to do the review. So EAI review, we are actually actively looking for someone to run up a bunch of e-mail services and software and test to see how EAI ready they are. So we're still looking, and you don't all have to raise your hands at once, but an e-mail afterwards would be welcome. Next slide and I'll go more quickly.

So blogs and editorials; this is our communications outreach, Lars will talk more about the concept and strategies, but we





have a number of editorials and we encourage people to become famous in their own local communities by taking this work and putting your own name to it if you want. Or we're happy to co-author it or take it and adjust it for your local community and get them published.

Our target audiences are professional associations, so computer societies. In New Zealand we've published in the Institute of IT Professional Journals, we've published in the Telecommunication Users Association of New Zealand in their online blog post and internet blog post, but each community will have your own associations.

We're producing blog posts for the UASG website, aiming for one a month. Talking to analysts; we just completed a webinar on broccoli issues. Broccoli issues is stuff that's good for you, but you don't necessarily want to do, so Universal Acceptance, DNSSEC and IPv6 are that combined group, and a number of other things. Next please.

So local initiatives; these are based on UASG008 which we produced last year, which was a model for local initiatives. We're currently in discussion with folks in China, India, and Egypt. We're expecting to have discussions with folks from Germany and Argentina, and we're keen to look at more. So if you would like to see UA raised in your local community, or your





professional community, please go ahead if you need something from us let us know so we can help with resources and if there's a need for cash to cover out of pocket expenses we can probably help with that as well. Next slide please.

And other things that we're working on; we're working through the IETF to get IDNA2008 working better, we don't think that there's a need for a change, but perhaps a better understanding of how it works. We have an issue logging facility so if you encounter a situation where you're experiencing problems because you think it's a UA issue, go to report.UASG.tech and fill in the form and we will pursue that on your behalf. We don't promise results, but we will log them and pursue them. We designed a fresh report format and we're having some lecture slides developed so that Universal Acceptance and EAI can be included in tertiary level introductory courses.

And just one anecdotal note to the issue logging is, we did have a complaint from a reasonably large regional airline in the Pacific Northwest of the US and we logged it with them, and they said, "Thank you very much." And five months later I'm told that their systems are now much more UA ready and accommodating of this variety of e-mail addresses. So we don't get a lot of positive response, but that's not a bad place to start. Next slide, please. Thank you.





So on the plans are additional reports, direct marketing to CIO's; so our target audience as Lars will tell you shortly is developers, directors and influencers. So we've got a pilot program to market directly to 100 or so CIO's and then engage with them. We have this idea of introducing EAI providers and IDN TLD operators, both at the CC and the G space just to at least introduce them to each other so they know they exist, because we saw in Copenhagen in a report from TEWNIC that when their IDN registrants had used an EAI e-mail service they got better renewal rates than they didn't and we heard on Friday the same thing from THNIC.

And we're keen to work on getting open source libraries UA ready. We're not certain yet how to do that; whether we do contracting out, or a bug bounty, or a combination of both, but for people who are ofay with the open source programming language library we'd be happy to talk to you offline for that. And then, most important for us is getting outside the internet garden space. Thanks very much, next.

And that's me, and Lars will take us through the next section, thank you very much.





LARS HOFFMAN:

Thank you, Don. This is Lars; I'm one of the co-coordinators of the Community Outreach Communications Team in the UASG and I am with eco - Association of the Internet Industry. And yes, I will give you a brief update about our communications. Next slide, please.

So for those who attend our meetings on a regular basis, our North Star message didn't change throughout the last month in our starting with the UASG, so it's "Universal Acceptance is essential for the continued expansion of the internet as it ensures that new domain extensions and e-mail addresses can be used by all Internet-enabled applications, devices and systems." So this will remain our North Star message. Next slide, please.

And what are our priorities since our last workshop that we had at ICANN58 in Copenhagen? As Don already described, we produced a lot of content, and this is something we would like to use now to go out and spread the word about Universal Acceptance, especially outside the Internet Industry, because there we have the experience that people are really not aware of what it's all about, and this is also our main audience and we would like to address Universal Acceptance.

As Don also already mentioned, we produced several announcements and media engagements with the White Paper





launch that we did in April. Also the reports that we did on browsers and websites that we can use to give examples; what is the current status on Universal Acceptance and what we still have to do to achieve probably one day 100% Universal Acceptance in the world.

We are doing association engagement together with Edelman; they are supporting us to reach out to associations. My personal experience is that it's on the one hand helpful to have Edelman on board, on the other hand there's kind of work that works best when you have a personal relationship with somebody and an organizational association that you can talk to, to bring those associations and organizations on board and put content relating to Universal Acceptance on the websites, doing blog posts, sending out newsletters, or giving us the opportunity to have a speaking slot at one of their events.

So, I would like to ask everybody in the room, if you've got a personal contact and an organization association or even in a company where you think this is the right address to talk about Universal Acceptance, just please let us know and if you can be a door opener, that would be very helpful. Because in our work we experience that you have other regular issues like, "Oh, this e-mail from Edelman went directly to my spam folder, or I just ignored it," and whatever, and when you catch up, they say,





"Okay, when you're talking to me about this, this must be an important issue so I will look for the e-mail again, or re-send it to me and I will take care of this." And this is very good, but this is a lesson learned, so if you can help us with that, please do so.

Then, Don also already mentioned that we had this webinar with IDG and the CIO Executive Council. That was two weeks ago, last week? Last week. Would you like to share your experience with that?

DON HOLLANDER:

So the IDG Executive Council is an association run by IDC which is probably one of the world's largest IT media organizations. The IDC Executive Council is targeted at CIO's of very large companies. Ram Mohan was actually one of their award winners a couple of years ago, so these are movers and shakers these CIO's, not just because Ram was an award winner there, but they run some very interesting webinars.

There was one fellow in a webinar a few weeks ago, and his IT budget was a billion with a "B" US dollars. So, Sigmund you can talk to Ash and let him know that there are opportunities. But these are pretty senior people, so we're just trying to raise awareness. Our view is that you have to hear about Universal





Acceptance seven times before you sort of take it in, and we're trying to start peppering the community.

RAM MOHAN:

Lars, this is Ram, let me add a couple of things. The IDG CIO group, they also have a website CIO.com etcetera, and they're very strongly focused on that CIO marketplace. And in the events that we've been in, we've ended up meeting with the CIO of General Motors, the CIO of Citibank, and those are the kinds of folks we want to introduce the concept of what Universal Acceptance is, because when somebody like that, when the CIO - I was having a conversation with the CIO of Cadillac; this is a GM company, and she was talking to me about domain names etcetera, and I was saying Universal Acceptance, and she in the space of two or three minutes she got it and then that resulted in an e-mail that got sent by the CIO to somebody down the chain.

And it was amazing to see the rapidity or how quickly the responses came from there, because this is the top pass in a very big hierarchy, and so our idea for engaging with the CIO group is exactly that; is we may only hit one or two of these people who may actually understand and take on board the message and do something with it, but if we can get a couple of big brands that actually do UA and do it well, our hope is to then take it and be able to show it to the world. And if we can achieve that goal,





then we think that we don't have to struggle nearly as much with explaining each time what is UA.

LARS HOFFMAN:

Thank you. This is also my experience; when you talk to associations and organizations that when you give a good example, so in the German speaking part of the world, it's always good to give examples with domain names that include characters like umlaut, and there are some organizations that are using this kind of domain name, and when you give those examples, then they immediately know what we are talking about, and this is a very good door opener, and when you say, "If you experience problems using this domain name, we would like to have it solved," then they are immediately on board.

So, if you have good examples that grab the attention immediately, that's very helpful in this kind of way when you're having the direct issues that the people are facing themselves.

So what are we doing in the future? So our short-term goals are to continue our work to raise the awareness about UA among developers, media, IT managers and CIO's like we already described. Part of this is also to build an agenda for next year of a number of conferences and events we would like to attend and to try to get a speaking slot over there.





So my example was the PHP International Conference next year in October, which is taking place in Munich. Or now I've got the attention of the CIO Association in Germany which is really interested in bringing this also on their agenda and through this also on the European level of the CIO Associations that are based in Europe, so I hope that this will work out. Also with the CRM Garden which is an association that unites all the open source CRM's that are on the market.

Because this is also what we have on our long-term agenda, which is to implement UA in computer science programs and also into every major e-mail, software and service provider's software. So, this is something we are working on. It's a long road still we have to go down, but we are keen to do it.

And what we also have on our agenda is, if you would like to think about how do we say that our mission would be accomplished someday, and still find some measures, how do we define that the work is done and how will we know that we've achieved our goal? So this is something we are still working on. If you've got ideas how to measure this, let us know, and we would be more than happy to have you engaged through our mailing list and be part of the story. Thank you very much.





DON HOLLANDER:

Thanks, next slide please, Valarie. And one more. Thanks, Mark.

MARK SVANCAREK:

Thank you, Don. At this year's workshop we did have a focus on EAI and EAI means "e-mail address internationalization", so that's e-mail that has Unicode in any of the labels in the local part or in the domain name part, and as you can imagine, that's a universal acceptance problem just like domain names, but with the added complication of the local part and the way that e-mail programs deal with that. And we are of course advocating for more software and services to become EAI ready and for registrants using non-ASCII scripts to use EAI more. Next slide.

So we talked about updates to the landscape and we had updates from Thailand, Microsoft, DAY, XgenPlus, a little bit, as I said, the landscape of others, and I encourage you to peruse and enjoy the materials from that when they become available because there was a lot of good information from the various practitioners about the DIY challenges of building your own software and various platform and tool challenges; downgrading proposals from XgenPlus, what they've been proposing, what they've been implementing.





I'd especially like to call out Thailand; Thailand has been working on EAI possibly longer than anyone. I think they did the world's first EAI workshop a few years ago and since then they've been working very closely with web masters, e-mail providers, pretty much everybody in Thailand. These are activities that we do as a matter of course in the UASG of course, but they were doing it first and kind of alone for a long time, and very deeply and thoroughly within Thailand itself.

An issue of note from their report out, Don mentioned this, there seems to be a strong correlation on re-uptake of IDN TLDs if you can also provide e-mail services that use those TLDs. So we had been hearing this anecdotally, THNIC has confirmed this; they've been giving away thousands and thousands of EAI addresses to Thai citizens for a while, and there's a strong connection, and that's something that we're going to dig into further because it's probably worthy of some research to see exactly how strong that effect is, but it's something to keep in mind if you want to provide an IDN TLD.

Next we talked about mailbox names and downgrading, and the thing that we are very happy about is that we now have a consensus on a downgrading proposal that doesn't require any changes to the RFCs. By downgrading we mean, how do you solve the initial problems of sharing e-mail with someone who





either doesn't support your script, like they don't have that language pack installed, or they can't read it, they don't know how to type it, or exchanging e-mail with someone whose system has not been upgraded to support SMTP UTF-8.

And so there have been a number of proposals over time, some of which seem a little ambiguous relative to the RFCs, and we've often thought about, "Well, should we advocate this thing?" It's not really clear that it's a best practice, but it turns out there is a solution that does not require any changes to the RFCs. Coremail has done a little bit of this work, THNIC has done a little bit of this work, XgenPlus has gone the final step, and I think they have the comprehensive solution now. This is documented in the materials and I encourage you to check that out; I think it's the last barrier really and we're very encouraged by it and happy about it.

Regarding the TLDs, we have already mentioned that. And we are generating documentation and doing evaluations as Don mentioned. We're thinking about having an EAI day at some point in the future, similar to an IPv6 day or something like that, and what did we decide the criteria was for us to hold that exactly?



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DON HOLLANDER:

I think it's something along the lines where a billion e-mail addresses are able to send to or receive from, but not necessarily be hosted in native script. And EAI Day 2 will be when there's enough service providers that can host a billion e-mail addresses that can be configured with an IDN address.

MARK SVANCAREK:

Thanks, Don. So it's not clear when that day will be, but it's something that we are thinking about a lot, and we'll be working towards, so how do you measure and demonstrate that we are at that threshold, and then as a UASG activity, promoting it and driving it forward in the same way that there was an IPv6 World Day, and then an IPv6 Day.

And then finally, there's just been a number of activities around ICANN promoting EAI, not the least of which is XgenPlus offering to give out EAI addresses to all comers, so just contact them. I don't know if you've been handing out those handouts today?

DON HOLLANDER:

That's the prize for people who ask good questions.

MARK SVANCAREK:

I think the secret is, you could probably get one if you don't ask a question, but please ask questions, and please get an EAI





address, and please use it and report back to us where it works and where it doesn't. I think that's all for me.

DON HOLLANDER:

Next, Valarie? No, there's more from you; Mark?

MARK SVANCAREK:

Yeah, there is more from me, but I've already talked to it, it was just a summary of the landscape of the number of software and service providers who we know of today who are either offering it or working on it right now.

DON HOLLANDER:

Thanks very much. Next, Valarie, thank you. Next. So I'm going to talk very briefly about some of the measurement and monitoring projects that we've done, specifically look at websites, browsers and linkification. Next.

So we did an evaluation of the websites; we looked at 1.200 or so websites, we found about 750 that we could easily find someplace to register with an e-mail address, we tried a variety of e-mail addresses, and the results were what they were; 7% accepted everything which suggests that they are done. 7% accepted none of our names. We did not use a .com as a control, but I think if we were to re-design it, we would do that again, we





felt that was a given. Shorter names are better than longer names, this is in terms of the top level domains, and ASCII is markedly better than non-ASCII in terms of TLD. This is UASG017, details are on the USG.tech website. Next.

So again, this is our review of browsers, we took seven browsers, five operating systems, 17 use cases, and the results were there. So this is the sort of studies that we're doing to see how UA ready we are. Next, please.

And then linkification; so this is just a couple of weeks into the project, that looking at these 20 social media applications and one of the things that they found was that surprisingly IDNs aren't treated particularly well, at least so far. And the other thing they found; that if you try to key in punycode, which is in XN--, the -- is often not converted to an M-, so the idea that you could always use revert to punycode may not be the case, so there's learning there, and that exercise is being designed in a testing environment so it can be replicated more easily if we decide to do it again. Next, please.

Now Sigmund's going to give us an update on IKEA and IT's journey into universal acceptance readiness, thanks.





SIGMUND FIDYKE:

Okay, thank you, this is Sigmund with ICANN org. Next slide. So, let's just go on to the next slide, sorry; this is better for when you're reading. As others did, as Lars did, we always start with a focus on what it is we're doing each time and what the definition of UA readiness is, and what's involved, so that's what these next three slides are. We keep repeating it every time and we'll always so that we keep our eye on the ball. You people who have been at this for a while know these things; these are the different versions of domain names and internationalization that could be viewed. Next slide.

And these are the things you have to do in your website and your digital services, from accept, validate, store, process and display. The validate actually, take just a second, has two portions, one is that it meets the overall definition that's separate from validating it against the actual list of domain names out there or TLDs out there. Fortunately for us, in our world, we do not have to and we do not actually validate that it is a correct or existing top-level domain, but that is also one of the pieces of that.

Next slide. Actually, let me say, don't go back, but one thing on the process; the process is the part that gets to us when we think we have a service that doesn't have any URLs or email addresses in its UI, so we think we're safe, but somewhere deep inside it's





still using one. Whether it got it from another program, or did something with it, so that process step requires a better look or a more thoughtful look at your services to see if you need to address it.

And again, always ending with this; why are we doing this? For ICANN, it's about the middle one, the next billion users supported on the internet. We don't actually sell anything so I'm not losing any money when we don't, but we're losing users and to us that is our money. Alright, next slide please.

So for us, to actually become UA ready it's a big task, and what we've decided to do is to break it into pieces. The first piece is to handle long ASCII domains. There's a couple of reasons we're doing that; one is, I can do it on a bug fix budget, which means no budget. It doesn't have to become a project, it doesn't have to become something the higher up has to sign off on, it doesn't show up in the yearly budget because it takes hours.

With QA it takes a day or two to do, but the wonderful side effect is, we've made all those other determinations; we've identified exactly where it is in every program, we've identified whether or not the program needs it and we will complete that for all of our custom services by the end of this year. We're a little behind, we hope to have it done by today, but again it's something that's sort of done without toeing my boss. I mean, I did, but there's a





certain level of, "Hey, it's a bug;" I don't tell my boss every time I fix a bug. And the rule in my part of the world is; this counts as a bug because I can fit it in there.

Harder is to handle the full Unicode, and so that's something that initially we started saying we would do it as we re-factored or broke in a major way into a service, but step three is what I'm calling now my "doable step", is we are moving to Microservice Architecture in a lot of our services, which means the code that actually handles Unicode I don't have to reinvent or redo in each service. I'm creating a library in each platform as I get to it, and then reducing the size of the effort.

In other words, the first one we did took us two months, and we figured that will drop significantly over time as we get better at it, but now I'm saying it's going to drop even more because I'm not reprogramming that, I'm not creating that code and testing that code again; it has been created and locked in a microservice, so for us that's the big change between Copenhagen and now, is that we've really moved in that direction. We've created the microservices in two platforms moving on to others to allow us to do that. In some areas, to be honest I've forgotten what my next slide is, so I'll talk about it and maybe it'll come up anyway.





Some platforms, and Ram mentioned Salesforce, Salesforce has been an interesting challenge. OCTA is another one we're using for identity management and we're challenged there as well. But both of them are working with us well, and working with us to provide the solutions. In those cases, the nice part is it's not something I have to do; when the platform supports it, especially in a less than java.net kind of world where the platform is doing most of the work, once it handles it, you're done. Okay, next slide.

So this is again the phases we're in; the phase one will be done by the end of this year. The key to that, handling long ASCII was chosen not because that's more important, but because it was easier to both develop and test, and gave me the side effect of finding every place where an e-mail or a URL is used, and we keep hold of that information for when we come back. Phase two again was the refactoring, and phase three is part of that with the microservice.

And I have something in the parallel track, so I had to name it differently, so phase A, which is our off the shelf software, and as Ram mentioned, we have things in our contracts that we ask for both IPv6, DNSSEC, and UA readiness is part of that. This is now -- UA readiness is endemic; at ICANN whatever we do it's one of the questions we ask every time. If you're looking at software





service of any kind, whether it's software as a service or a package, it's now in our DNA to start asking that question and it's a consideration.

Now obviously, it doesn't mean if it's the only solution -- you know, if I've got some users who really need that and it doesn't, then we'll complain and push, but nevertheless it is part of the selection criteria. Next slide.

So, last time I did this we were a lot less far along; but to be honest, a good half of the progress you see here, and we're about halfway through everything, about 56%, has been -- oddly enough, a lot of NA's came up. Basically, when you take the time to go through your code and say, "Is there a use here or not?" And you find out that there isn't, we find that the task isn't as huge as it looked at first. I have 55 custom services, so my initial idea was, I have 55 programs to modify, and that's not the real answer because some good portion of those programs don't use URL's but I'm not going to put it in the "done list" till I know that for sure.

And so part of, again, that phase one is to check every one, and putting things into the "I don't need to touch it level" has been very useful and shows progress to my boss, which is nice, but also really allows us to check it off and say, "We're good, we're good, we're good," and so it really gets my focus a little better





lazered down to the ones I actually need to touch. Once I get that list, and now that I have that list, then I look at the platforms they're on and that gets to the microservices. Next slide.

So that's basically some of the things that we're looking for before I get to this list, again, the first one was the microservice architecture and that's the one thing I really want to promote here, is to try to solve that problem once, to write something that solves that problem and call it. Whether it's going to a database and back; whatever you're doing we're still storing, we change the database to being Unicode, or in punycode, or if it's still in ASCII we go to punycode; all of that's handled through one programs. And we just call it and let it go.

And so now, one of my biggest fears before I started doing this was testing; all it takes is typing something wrong once, all it takes is forgetting one place to put it in the right way and everything starts to crumble. And when I can put that intelligence into a small piece that I test the bajeebies out of, then my confidence in just sort of plowing through gets a lot higher. Because otherwise I'm worried with every single time I do this, did I do it right?

So just some things I mentioned last time that still come to mind; multiple character sets increases the attack service from a



EN

security point of view, so we have another microservice that validates input to say, "I will actually reject input that's in multiple character sets, multiple Unicode character sets. You can't give me one letter in Cyrillic and one letter in Hebrew and one letter in English."

**UNKNOWN SPEAKER:** 

Is that just within a single label, or is that within the entire script?

SIGMUND FIDYKE:

Within a label. And I won't always reject it, but I'll certainly note it. I mean it's going too far perhaps to reject it, but I do need to note it and watch over it because from a security point of view that's an indicator of an attempt to cross-site script or something so that's something we've been doing.

And one thing ICANN is also looking at is, considering, is we and other companies may need to have multiple URLs or IRIs in each language going to the same end point. There's been a lot of talk, and there will be a lot of talk here about our new ICANN.org as it comes out in a few years called ITI, and that's one of the considerations for them as well, is how many URLs will go to that website, because I'd love to have ICANN or you to be able to get to ICANN.org typing not in ASCII. I think that's it, next slide.



EN

Thank you. So the one other thing we have is that we are putting our -- as Don has mentioned about White Papers and blogs, we are putting our experiences and some of our designs into a White Paper that we'll give to Don to release to this group, just to give our experience in less that just my verbal here and hopefully get input back because I appreciate the experience and expertise of the world over just what the couple of guys I have are thinking of. Thank you.

DON HOLLANDER:

Thanks very much, Sig. Next slide, please. So thank you all very much for holding your questions during the session, and we'll take them now, if anybody has any? I'm going to let Ram drive this session.

**RAM MOHAN:** 

Sure. Thank you, Don. Don's going to be evaluating your questions for how good they are, and so you'll have a qualitative judgment at the end of the whole thing. Anyway, with that, I have one, two, three. Okay, wonderful.

So what I would like is for those whom I cannot see, if you wouldn't mind coming up to the microphones here, or just lining up for the microphones, that just makes it a little bit orderly.





And let's start with you right here, please introduce yourself, your interest in UA and then your question please.

MICHAEL FLEMING:

My name is Michael Fleming; I work with GMO Brights Consulting in Japan, I'm a consultant for quite a large portfolio of brand, .brands, and I come from a different, kind of the opposite side here. Where I come from is that I have Fortune 100 or Fortune 200, or 300 companies that are experiencing difficulties with this UA readiness, specifically within their own .brand whereas they're already pushing for compliance within their own company, and with their own CIO's.

What's really interesting is the fact that when they go out to their distributers or their sellers or any of their affiliates, those affiliates are using e-mail providers that are not accepting of their own .brand, which makes it a very big challenge. I guess we've kind of received the report of what has been done so far, but speaking specifically, I think it would be very beneficial if for example we could work together in some aspects with pushing for either .brands, moving forward with e-mail use and aspects like that, but have you done any work where you've actually been reaching out specifically to those e-mail providers and trying to get them ready?



RAM MOHAN:

Thanks. Mark, do you want to take that, on getting e-mail ready? You have direct personal experience, and I can speak to some of the outreach efforts that we have done.

MARK SVANCAREK:

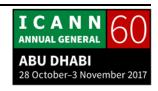
I kind of got lost in the question, actually. Could you repeat the question?

RAM MOHAN:

Let me just summarize it, Mark; the question is, when they have brands, and brands implementing UA internally, they're implementing UA and then they are trying to make sure that e-mails from whatever.brand, when that e-mail has to reach that company's vendors, distributors etcetera, those vendors and distributors are using mail systems that are not able to handle EAI, or in a larger domain. So the question was, what outreach are you doing, and also what experience do you have with getting e-mail systems to be EAI and UA ready?

MARK SVANCAREK:

Okay. So really, two different sections, one is EAI ready, and the other is the rest of UA ready, and so you've seen the experiments that we've been doing to just try and do the evaluation, and





there has been an outreach to the various providers in asking them, "What are you doing? Are you moving this ahead?" A lot of this has been focused on EAI though, because it's sort of a superset problem, and I would say that I have not seen as much of an issue on the e-mail front with the .brands.

I do recall that at Microsoft, we had to explicitly add that feature into Office 365; we have a "bring your own domain name" feature, and it turned out that we were not UA ready in that. And even with the work that we did, we couldn't offer EAI addresses at that time, which meant that it wasn't really practical to bring your own IDN. So, I'm not sure what else to really say. We haven't seen anything...

RAM MOHAN:

Yeah, and on the outreach side, we've spoken; Mark got involved from Microsoft and has been helping lead the program inside of Microsoft to get various Microsoft services to be UA ready and EAI compatible. We've had folks from Google and Gmail, and Gmail is EAI ready now; they weren't when we started the UASG effort. Coremail, Dr. [inaudible] is here and his company has EAI solutions but one of the big challenges that we have is getting the attention of these e-mail vendors and providers.





And I think that if we can collaborate, if we can get brands and the brands CIO's or the brand leaders to be able to get together and maybe put a common message out, it seems to me that email providers would take notice, because it represents significant heft in the marketplace so would love to collaborate; I saw you guys exchange cards, so let's go forward. Let's go to you here, and I'm just going to alternate and make sure that we keep moving on.

**ELAINE PRUIS:** 

Thanks, is this on? So my question is for Sig; I saw in your last—

RAM MOHAN:

Sorry, could you please introduce yourself?

**ELAINE PRUIS:** 

Sorry. Elaine Pruis; my interest is I like it when things work. Sig, I was just wondering if you could address the last two bullet points on your last slide, I was curious about them and I don't think you addressed it. Thanks.

SIGMUND FIDYKE:

Okay, just a reminder to myself and to everyone that we talk about e-mail addresses and URLs, but keep in mind that there



are a lot of other ways that we're going to be getting input and connections and I am -- my main purpose at ICANN is Enterprise Architect, which means I need to design the whole architecture for the future and I like to keep that in mind here. And I'm not saying this directly related to our current understanding or Universal Acceptance, but it's in the same area and I like to keep it in mind, so that's why I leave it in there.

RAM MOHAN:

Thank you. Let me move to you there.

SIAVASH SHASHAHANI:

[Inaudible]. My question is related to Don's report about evaluation of browsers; did you check about the IDNA2008 readiness? The reason I am saying this is that only one major browser has implemented IDNA2008, and you mentioned something about reporting the problem to IETF; what exactly is the problem? As far as I know, there's no problem except that there's not been enough pressure on the browser vendors to implement it.

DON HOLLANDER:

Thanks, Siavash, for the question. So we didn't look specifically at IDNA2008 or 2003; what we did is we took our use case, the



domain name's websites associated with our use cases and UASG04, which were a variety of new.long, new.short, IDN.ASCII, ASCII.IDN, Arabic.arabic, to see whether the browser would resolve and whether the browser would display the name correctly, so that was the extent of the evaluation that we did. We didn't go into the technical bits and we didn't test for edge cases.

RAM MOHAN:

Thank you, and a question from this side of the table? There you go.

**BARRY LEIBA:** 

This is Barry Lelba; I worked on both the IDNA2008 and EAI work in the IETF, and the comment here is, I talked with Don about this yesterday, specifically about downgrade in EAI. Downgrade is much harder than you think to do correctly, generally. The way the EAI work was done is, the working group put out a set of RFCs that are in the 5000 range that are experimental, and after the experiment was run for a while, it reconvened and did an update that standards track and those numbers are in the 6000's.

If you look at the working group page, and look at the RFCs, you'll see the older ones have a couple of downgrade





documents. We tried and decided that it doesn't work, so I don't think we should stop trying but as you evaluate downgrade schemes, do it with a critical eye; it's much harder than you think.

For instance, the standard thing is to say, "If I send a message to you, and you don't support EAI, I will do some alternative back thing and downgrade it and send it to you with an ASCII address." The tricky bits are; I sent two people messages, one of them fails, the other one gets the message. Then when they reply, their replying -- it gets to be a mess. It's difficult to get a thread going where things aren't fragmented and e-mail works the way it's supposed to, even though you may be able to fix a particular connection. So just beware, and make sure that those cases are covered.

MARK SVANCAREK:

Yeah, we are aware of that. In fact, at the workshop I mentioned that I had gone through the historical record looking at 5800 RFCs, the historical record and looking at some of the things that had been tried and commenting on the final conclusion that it just seemed like it would be easier to make everybody support us in SMTP UTF-8 than try to do all these elaborate, fragile, other things that would still require people to make a lot of changes in their system.



BARRY LEBA:

That is what the working group determined, that's why the standards track ones don't have any downgrade in them.

MARK SVANCAREK:

Yeah, and so as a result there have always been calls to put punycode into the local part, things like that that we have always reconsidered and always rejected, they always come back, and we feel like the situation we are in now, where we're essentially using the send on behalf kind of features, so if you provision a mailbox with multiple aliases, so a Unicode mailbox but with an ASCII alias to that mailbox, and then on your service side you make the decision that, "Oh, they do not support SMTP UTF-8, I will use this other alias, but I will in friendly name field display the original IDN," this solves almost all of the reply-all cases. What it results in, is after a couple of reply-alls for example, you may see Ajay Data has been replying here if you actually look at it while there's ASCII Ajay Data, and there's Unicode Ajay Data.

For practical purposes, most people will find that this is not confusing or disconcerting. Other people will look at it and say, "Is this really the same person? This is a little bit fishy," but with the exception of this case, and it is a non-true blue case, the



reply-all case is always what we go back to, so there's say, I'm sending from my EAI account, I'm sending it to a person with an ASCII address, and they do support EAI and ASCII address, they don't support EAI, and an EAI-enabled person, so it's sending it to three or four people, now everybody reply-all, see what you get.

And we feel pretty good about where we're at right now, you are correct; you can never get to a perfect case until everybody supports SMTP UTF-8 but we feel pretty good about where we wound up and the crucial thing is, it doesn't require any changes to the RFC, so we're not trying to do anything goofy, or ambiguous, or trying to talk people into doing stuff that isn't defined.

RAM MOHAN:

Thanks, Mark.

DON HOLLANDER:

Can I just make an interjection there? So at the workshop on Friday where there were maybe 20 people there, we came to some conclusions. That's not the answer, but we got a clear enough point that that will now go out to the UASG community, EAI specific community for further rounds of discussion. And we recognize that there's people with long histories in that space,



and they were not in the room yesterday, but we are working to try to create some good practice, if not best practice, that will help us along the way. Thank you.

RAM MOHAN:

Thanks.

MARK SVANCAREK:

Yeah, so just remember that we now have a proposal that we can all stand behind. Like any proposal, we do expect the community to give us feedback on it. Previously, we did not even have a proposal that we could all stand behind.

RAM MOHAR:

Thank you.

WENDY SELTZER:

Thank you. Wendy Seltzer; newest member of your discuss list. Thank you because I'm here with W3C, the Worldwide Web Consortium, and I think there's some very good interaction with internationalization efforts that we have to make sure that the web is universally accessible across languages and scripts and usage communities. And so I've already talked with Don about





some ways that we might work together more closely with the browser implementer community and with web standards.

The other comment or question that I wanted to raise was in reading through the linkification draft; when do you think you'll be ready to say, "HTTPS should be the default prefix that you put when inferring that something is a web address?" Because we're encouraging people to use security and encryption by default for transport.

RAM MOHAR:

Wendy, I think that's a very good suggestion. I will not give you an estimate of when that'll happen, but what I'll say is that we'll take that on-board and it's fairly straightforward for us to go put an update into the document; it just makes sense. But we have a process for it, so appreciate it. Let's take a question from this side of the table? Please introduce yourself.

AJAY DATA:

I'm Ajay Data, member of UASG. For you and any software, Sigmund, I saw that on phase 4 you have a plan to make UA ready as a demand for whenever you are [inaudible] your offshelf product, so I was just wondering that why can't we think to bring it together with phase 1 so that what you buy today is already UA ready. Maybe you do not use the functionality of that



EAI and something else, but we do not buy something today which is not UA ready.

SIGMUND FIDYKE:

Sorry, I apologize for the confusing slide; I actually called it phase A, meaning it's concurrent. So we are doing that now. I mean, my custom services are going through phase 1, 2 and 3, and at the same time my off the shelf requirements exist today, so yes, we are doing that now. Thank you, absolutely.

RAM MOHAN:

Thank you. Let's take a question from there?

**DEEP MALENDEN:** 

Thanks, Ram. It's Deep Malenden, [inaudible] Limited. I just have a quick question with regards to naming services portal and CZDS; are they both UA ready, those portals? And I think they are off the shelf, because I think they are Salesforce orientated?

SIGMUND FIDYKE:

Okay, that's to me. Yes, the naming services portal is Salesforce based, absolutely. And so what that means, it's 85% UA ready. There are still some e-mail issues and we are working hard with -



- and actually Salesforce is working with us, so we're hopeful and confident. CZDS is half and half, meaning part is in Salesforce and part is in JAVA. The part in JAVA is absolutely UA ready, fully ready; not my phase 1, 2 stuff.

**DEEP MALENDEN:** 

Thank you very much, Sig.

RAM MOHAN:

Thank you, any other questions from this side of the table? I'm going to go there. Okay, let's go to you.

HADIA EL MINIAWI:

My name is Hadia El Miniawi; I'm the leader of a center called The Domain Name System Entrepreneurship Center. It's a partnership between ICANN and the National Telecom Regulatory Authority of Egypt, and the objective of the center is to foster the domain name industry in the region which is Africa and the Middle East. So of course I do have an interest in making IDN's work.

And my question, it's a simple one, it's not technical; who has the responsibility to push e-mail providers and service providers and vendors to be IDN ready? Who do you think should be doing this job, and how do you think we could approach that or start



doing that? Because on the technical level, I'm seeing a lot of work is being done, and I think at this moment in time the problem is not really a technical problem, but it is a sort of awareness and being ready problem. So how can we do that; who has the responsibility?

DON HOLLANDER:

Ram, can I answer that?

RAM MOHAN:

Go ahead.

DON HOLLANDER:

So in Egypt, you may not have hear this yet; Bahair speaks so highly of you, and he is so confident that you can do this that he is probably just been so busy organizing this meeting that he hasn't shared the good news with you. So a little bit facetious, but the answer as to who raises awareness is the people who know the topic, and the people who they can share the information with.

So, everyone in this room, if the goal was for the UASG to be the only sole source of information and distributor of information, we would be nowhere. It would take forever longer than it's already taking. But if our goal, this is the local initiative, is to





distribute that, not so much authority, but to encourage people locally to raise awareness with your local community. So in Egypt it would be with the local registrars, with the local ISPs, with the computer societies, with some of the very large government ministry, IT departments, with the large corporate banks and the insurance companies, so any place where the developers and the CIO's gather and you're able to take the message to them, then we would encourage you to do that.

So with respect to content to share, we have a host of material available on the website, we have our UASG005, which is a very short quick guide to Universal Acceptance, and that's available in Arabic and 10 or 11 other languages, and shortly will be available in Swahili, because we've had a request for that. And if there's a request anywhere else in the world that you think having this document available, or any of our documents available in a local language, just let us know. We would be more than happy to work with you to get the translation done or to get the translation done elsewhere.

So the short answer is, it's individuals' responsibility. UASG is here to help, and facilitate, and in Egypt's case, Bahair and I have been talking about this just a couple of weeks ago leading up to this, and we're looking to use the MENAT Region as a pilot





for the work that the UASG will be doing with the entire ICANN GSE team.

RAM MOHAN:

Hadia, thank you for that question. I wanted to add a little bit to what Don was saying. You had posited that perhaps the problem is an awareness problem; to get these e-mail vendors and e-mail providers to do the changes necessary to support EAI as an example. What we've found is that there is a second component to it, which is that most of these places are running businesses, and when we talk to them they say, "Nobody is complaining, nobody is asking for this," so they are working from kind of a market demand point of view, and they're saying, "Nobody cares."

We hear that not just about EAI, but we hear that about IDNs themselves, right? We hear people saying, "Well, there are 40,000 IDN domain names in this thing, there are 150 million ASCII names, why should we devote any time to supporting IDNs in our browser or supporting IDNs in our forms?"

So that's partly also why we came to a conclusion that maybe we should go and look at programming language libraries and touch them directly, because many website forms and things like that, they're using programming language libraries that are





sometimes quite obsolete. They have form validations that are 10, 15 years old and they're using wrong techniques there.

So I think the market demand is another part of the problem; we can't stimulate that ourselves but absent that, then we have to get to what Don was saying which is, engage locally and to the speaker here who was talking about brands, I think that's a really powerful way to bring the message home about demand. If we have brand owners and C level people from brand owners writing or blogging or saying something about the problem, I can't imagine that e-mail providers or other big software providers will not take notice.

HADIA EL MINIAWI:

I actually can't agree more with you. Yes, creating the demand is the issue here, because usually you don't need to push the providers to provide a service; they go for it because they are going to put money in their pocket from it, from providing it. So yeah, of course this is the main issue; it's creating the demand.

And I can see that in Egypt talking to some of the registrars for the IDN ccTLD of Egypt. The registrar told me, "Well, actually people don't want it." And he said, "Even if they do have an email in Arabic, still they will not use it when they are communicating with their business partners abroad," so they



will still need the English e-mail and the ASCII e-mail and they take this as -- I give them that like as a gift over the other one. So yes, creating the demand is a thing that we need to think a lot about it and see what we can do about it.

RAM MOHAN:

Yeah, at the workshop on Friday, R.J. was talking about what he is doing in his country in India, and I think he is in the middle of a project where they're looking to have close to a billion e-mail addresses, EAI addresses issued. That will be an interesting thing to report back on. Other questions in the room?

SIGMUND FIDYKE:

I just wanted to make one last comment to that topic; I think it hurts us when we divert back to the use case of the cosmopolitan world traveler who is doing business with colleagues in other countries. That is not necessarily the demographic who needs EAI or IDN's. People who read one script and communicate primarily with people who only use that same script, those are the people who can be assisted by this technology, and I think it's a red herring; I think it's a dead end when we revert back to "people like us", who can accommodate perfectly well using ASCII in all of our personal and business lives.



HADIAN MINAUI:

Yes, again, I totally agree. And this is again a bigger problem because those are the people that we are now looking forward to connecting them, and those are the ones that are not online today but will be online in maybe five years or something. And yes, I totally agree, and we are now working in Egypt and maybe in the region to bringing those people online. Once they are online, then we have the market; I totally agree.

RAM MOHAN:

That's wonderful to hear. Thank you so much for your contribution. We have two more questions, let's go forward with that and just note that we have just a couple of minutes left. So please, come on over.

UNKNOWN SPEAKER:

Hi, [inaudible], NCUC, thank you for your questions, that was needed. I have a short question about Universal Acceptance of popular browsers, so you already bought states at 8 browsers, 6 operating systems, how were they selected; did you notify, did you hear back, and if you can shortly make a couple of remarks on the Firefox and if something is progressing there? Thank you.



DON HOLLANDER:

So we found [inaudible] somewhere on the internet that ranked popularity of browsers, and we used that as our basis. We did the same thing with operating systems, we said, "Android, iOS, Mac, PC and Linux of some flavor," I didn't care what. So we let the evaluator make that decision; they're actually an open source operation so they had that. And then they did the evaluation, and I don't recall the details behind Firefox, but I'm pretty sure Firefox was on the list.

RAM MOHAN:

Yeah, thank you. It was fairly ad-hoc. Next guestion?

**MARTIN SUTTON:** 

Thank you; it's Martin Sutton from the Brand Registry Group. I'm sorry to join the meeting late, it may have already been stated but I just wanted to comment on the fact that as the brands are becoming more active, some of these issues that I've just heard about are emerging and are of a greater focus for brands, especially those with IDNs, and as they want to increase usage into the e-mail space. So I just wanted to point that out.

We've had the luxury of Don and Mark working with us in the past and providing presentations, but I think that that was some months ago, and on Thursday at 1:30 I've got a session talking about .brands and how they've started to emerge and use that



space. We will cover a little bit on Universal Acceptance, but I think again, it will be a very good time to re-engage. We do point members to the UASG site for help, assistance, and for reporting purposes, which I think is extremely valuable, but we may want to have a stronger feedback mechanism as other brands start to progress.

**RAM MOHAN:** 

Thank you, that's very welcome and we are completely onboard with that, and everything that we can do to help we will. Thank you so much.

Thank you very much. That brings this session to a conclusion and I appreciate all of your coming together. We will report back to you as we continue doing work. Appreciate it.

## [END OF TRANSCRIPTION]

