SINGAPORE – TLD Universal Acceptance
Monday, March 24th 2014 – 15:15 to 16:45
ICANN – Singapore, Singapore

UNIDENTIFIED MALE:	It's March 24, 3:15 in the afternoon. We are starting the meeting for TLD Universal Acceptance, recorded. This is the Sophia room. Thank you.
	Test one, two. Test one, two. Test one, two. Oh, no, it's just really delayed.
UNIDENTIFIED MALE:	I'm sorry?
UNIDENTIFIED MALE:	It's just really delayed.
UNIDENTIFIED MALE:	Oh, okay.
UNIDENTIFIED FEMALE:	Why can't we sit down in here? Because I don't want to get thrown off the table.
UNIDENTIFIED MALE:	Hello? Hello? Hello? We shall be starting in a couple minutes. We're just setting up.

Note: The following is the output resulting from transcribing an audio file into a word/text document. Although the transcription is largely accurate, in some cases may be incomplete or inaccurate due to inaudible passages and grammatical corrections. It is posted as an aid to the original audio file, but should not be treated as an authoritative record.

CYRUS NAMAZI:	Good afternoon, everybody. Today's session is about the universal acceptance of TLDs.
UNIDENTIFIED MALE:	Hi, thank. I'm sorry. That was me.
CYRUS NAMAZI:	Was that you? Alright.

Obviously, it's not a new topic, but it's a topic that has been amplified in scope with tens and hundreds of new TLDs going into the root. And in fact, it's a topic that for years, operators of new TLDs have been facing and trying to come up with a solution for it.

What we'd like to do today in today's session is to focus on the following several questions: how do we synthesize the statement of the problem so that all of us are on the same page? As a community, what steps should we be taking to address these issues? And in particular, what role should ICANN be playing to play its role?

So to help us start this dialogue, we have assembled a panel of experts – to my right – to help us define and initiate a communication around this topic.

What I'm hoping to get out of this session today is the outline of a template that we can build upon so that we can address the underlying challenges lying ahead.

So let me go ahead and briefly introduce our panelists. We have Andrei Kolesnikov, who is the director at ccTLD at .ru. Welcome. We have Ram

Mohan, CTO of Afilias, a TLD operator. We have Gerv Markham from Mozilla; Jordyn Buchanan from Google; Michael Thatcher, CTO of public sector Asia at Microsoft; and Rinalia Abdul Rahim, who is the vice chair of ALAC's IDN Working Group.

Before we begin with our panel of experts – which will moderated by Francisco Arias, director of our technical services at ICANN – I asked Ed Lewis to give us an update and walk us through some of the work that's been done to date in addressing the issue and help bring us up-to-speed on some of the lessons learned. So with that in mind, I'm going to turn it over to Ed to get us started.

ED LEWIS: Thank you. Good afternoon. Looking at this, one thing to keep in mind is what will be success? What's the success of this project? The best way to categorize that in a brief statement is to say that we want to be able to use new names, the new TLD names, the same we use the old names. We want to make sure there's nothing different between anything that's new from what's old.

The approach is going to be restricted to clearing technical hurdles to this. We want to make sure that the system is able to pass these names around, and we want to avoid the non-technical issues that may pop up in this area. So we're going to stay pretty much just in the technical area and just make sure the system would work with anything out there.

I came into this starting with the joint ccNSO-GNSO-IDN work groups' final report. And in that, there were four recommendations that I'll paraphrase because I could spend all my time just reading this one slide.

First is make sure you can register names, regardless of where they are. This is cast in terms of IDN, making sure I can put IDN names anywhere in the registration system. Am I enabled to actually do internationalized names on the Internet?

The second is to spend energy to actually pursue universal acceptance, make sure that we actually get all this done. Have activity here, not just what's in C, have materials available. Materials are important to have. B says make sure people know about the materials.

Finally, to not restrict efforts to just talking about this and restrict efforts to just publicizing it but actually investigate to make sure that we've actually accomplished our goal by looking out for the other parts of the Internet that need improvement in this area.

And so to that extent, we put together this panel. And in preparing for the panel, I spoke with some of the panelists at length and discovered a few things. This is [meant] to help get our minds on the track towards where we have to do some work here.

And the first thing that kind of startled me was that this is not as much about domain names and services like e-mail and the web browser out there but the use of URLs and e-mail addresses because we work on those things and that's where people start making judgments about them.

In particular, some of the issues are we want to make a judgment, "Is this is a good website to go to?" "Is this e-mail address going to be a valid address?" and so on. There's a whole lot of work in that area. A lot of people are doing this kind of judgment in their software.

And also, another one that popped up more recently was when you type in a link, when you type in the URL for something, you'd want the receiver to click on it. So there's software which just automatically recognizes, "Hey, that looks like a URL. Let me make that a clickable element in the message you're getting."

Now, service providers are using tools, and they're putting the tools together in different ways. And there are a bunch of concerns about that. How do we make these? We looked at these tools. Well, a big part of this is that time sensitivity exists. Tools want to be able to do whatever they need to do quickly.

Brute force methods are out there for doing all this. We could brute force our way through all of this, but that's going to take way too much time, so people make shortcuts. And the problem with taking shortcuts is that you make a shortcut because you want to get somewhere with a judgment saying, "I cannot follow everything in this area. I need to go somewhere."

This means that the shortcuts being taken in this care are all over the board. Some people have different reasons for looking this up. They want us to think quickly: "Is this a real, good e-mail address?" Or they have to have accuracy: "Is this really an honest website out there?" and so on or a heuristic for whatever reason they want to go through. So there really isn't just one way to shortcut our way through these problems.

So recognizing that we have things to change – which I haven't really established, but I'm going to assume that we have things to change – how do we go about doing that? How do we chase down these pieces of

software, these tools, and practices of people using tools, and try to make sure that there are no obstacles to getting domain names through the system?

So that's one of the challenges right there. It's kind of a wide-open area. We can't go to one forum right now and say, "Hey, fix all of the code that does this." There's no one area doing that.

And even as much as we have some ideas where we want to start, we don't know all of the places we need to go with this. We really don't want to spend time surveying the entire Internet for every possible service out there. We need to find out through different channels what else is getting in the way of people getting their job done and having fun on the Internet?

And again, the theme of the session is going to come back to: how does ICANN itself play a role in this?

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RAM MOHAN: Plenty of companies that did not take a call did not return a call. So again in frustration, the "New York Times" is a good example. I couldn't get e-mails. At that time, .info had four million registrants, which meant that effectively and in a theoretical way – four million people with e-mail addresses couldn't get mails from the "New York Times."

Had a hard time reaching somebody there, so we said, "What do we do?" And we came up with this idea and we wrote a letter. I wrote a letter, and I signed the letter. And we had some papers underneath it that explained that these are actually legitimate TLDs.

Got basically a piece of paper that had ICANN's logo embossed – which, I don't think ICANN actually has any letterhead that is embossed – but we took that, embossed it so it looks official, you know? And on that piece of paper was simply a printout of the IANA list that had these TLDs actually accepted. And then we sent it out by FedEx.

Let me tell you: FedEx is incredibly powerful in universal acceptance. Because it goes to the CTO's office or the CIO's office and the person who is the gatekeeper looks at it and says, "Oh, my goodness. It's a FedEx." And it goes to the desk of the CTO, and that gets a call back.

Although it's funny, it's quite practical. It's relatively expensive. It takes time and effort to do. We've had some level of success with that. But over the years, I've come to encapsulate our own experience in what I call Three Rules of Universal Acceptance that you see on the screen.

"An old TLD will be accepted more often than a new one."

"An ASCII-only TLD will be accepted more often than an IDN TLD."

And, "A two- or three-letter TLD will be accepted more often than a longer ccTLD or gTLD."

That's been the state of affairs for more than 12 years, now. And I'm here to tell you that the problem is not a technical problem. The problem is, in many ways, getting the ear of people who actually should care about it and trying to overcome inertia.

And my perspective is that ICANN in its role – you know, Cyrus, to your earlier question, probably the single most effective thing ICANN can do is to engage in that coordination function and try to get a little bit of

momentum among a large group and a very diverse group over most of whom ICANN has no direct control.

One last example: you may think that if browsers fix this or handle new TLDs and if e-mail works, things are going to be okay. But let me share with you. Many people who buy domain names and then who host websites use control panels to manage their websites.

Most control panels today for managing websites do not know what to do with right-to-left scripts, do not know what to do with symbolic or symbol-based character representations. That is another barrier to universal acceptance. It's not just, "Can you reach somewhere?" But if you registered something, if it's working in other areas, can you still work with it? And we still have a hole there. Thank you.

FRANCISCO ARIAS: Thank you, Ram. Now we have a recorded video by Gerv from Mozilla.

GERV MARKHAM: Thank you very much for having me to speak. I'm sorry that I can't be with you in person.

I want to talk a little bit about the public suffix list because in the context of TLD acceptance, it's often something which is mentioned as possibly a problem and possibly a solution.

The PSL is an 8,000 line or so map of the authority structure of the DNS name space. It was initially created to help browsers set cookies with the correct security properties because browsers and the web rely for

security on not letting unrelated sites mess with each other's cookies and other data.

We needed some way of deciding what sites were related and unrelated. Original implementations had a rule about numbers of dots in the DNS name, which were just utterly inadequate. And so the PSL was created to provide a more accurate map of that authority structure.

And it's gained adoption, both within other browsers other than Firefox and also in other places, because it seems that people find such a map useful and there's been no other better or more viable resource with ongoing upkeep that provides this information.

So the PSL recognizes and follows ICP3 with respect to having a single authoritative DNS root within it. So the contents are a superset of the information found in the root zone file. But the PSL also provides detail within individual top-level domains inside that root with respect to transitions of administrative authority, where one authority of the administration hands over to another one, who then deals with the name-space from that point on downwards.

So examples of entries in the PSL would be .net because one administrative authority delegates names below .net. But when you get to [food.net], that's somebody else. And [bar.net] is somebody else again. So there's a transition of administrative authority there from one authority to multiple authorities. co.uk is another example. One organization hands out names underneath co.uk, but when you get below those names, you have a transition of administrative authority.

So the PSL is split into two sections, though, because we want to make sure that we give the opportunity to anyone within the DNS structure to apply these security properties to their area. So we have one section which are the things like .net and co.uk and com.sg and lib.ca.us and another one for names like appspot.com or iki.fi or other what might be set to be privately-owned areas where the owners of that do have substructure which is owned by their customers, who they don't want interfering with each other's stuff. And they want to be in the PSL to acquire those security properties.

But some applications to the PSL have decided they need to make a distinction between those two different types of entry. And so we split them up, for those who have the ability to see the markers that we put in.

The PSL is maintained by a community of volunteers, some of whom you may know. There's Simone Colletti, Jothan Frakes, and recently, Steve Cheng. With the help of these volunteers, the PSL is keeping at or near the pace of root editions during the introductions of the new TLDs, which have been happening last year and this year.

We do do some validation of the authoritative origin of requesting changes, particularly from places like appspot.com and people in that category of the DNS. They have to apply for themselves because being listed in the PSL obviously changes the behavior of bits of software with the relation to your area of the DNS, and we need to make sure that people understand what's going on and know what they're getting into.

The list, then, has many important uses within Firefox, just to give you some idea – and this is not an exhaustive list. It helps maintain a thing

called the Same Origin Policy, which is what I talked about about websites being able to distinguish between what sites are, if you like, connected to each other or co-owned and what sites are not and not have them messing with each other's security data or anything like that. So that is used for cookies and site-based permissions. We also highlight the public suffix +1 label of the domain name in the URL bar to help people understand where it is they are on the web and try and mitigate phishing attacks.

Other browsers do other things, as well. For example, Chrome uses it for making sure it doesn't accept wild card certificates: whose wild card is too wild? If you like, like star.co.uk. And because this list is embedded and necessary for the security properties of browsers, then it will remain in browsers until it's replaced by something better.

The PSL has also made its way into various standards: the CA/Browser Forum baseline requirements, again related to not issuing overly broad wild card certificates. The D mark standard, anti-spam standard. HTML 5 and the definition of the document.domain property, which again is related to the same origin policy.

The PSL maintainers acknowledge that the PSL may be both a cure for universal acceptance problems where people use it instead of using something which would be much worse, and it may be a cause of them if people use outdated data. We don't have much of a problem with that in web browsers which have a long turnaround time but, of course, we don't know who else is using the PSL and what they do to update their data.

So we would have no problem with it being replaced if the replacement had at least the same capabilities without introducing undue encumbrance or discrimination. There are some particular characteristics the current solution has in terms of the way that it performs that are important to us, and we're happy to talk more about that when time permits, which it doesn't really here.

So thank you very much for your time. And I wish you all the best with your deliberations.

FRANCISCO ARIAS: We have now Jordyn from Google.

JORDYN BUCHANAN: Hi, everyone. I'll try to be brief. I've sat through a number of sessions today where there's a lot of talking and not a lot of opportunity for interaction, and I'd like to perhaps turn that around.

But I'd like to mention a couple of things briefly. To build on what Gerv just said, the PSL is an example of one type of tool that can be used. But as Ed alluded earlier in the session, there's often different types of verification of domain names that are appropriate in different contexts. And we really need to develop the right tools and the best practices in order to get the right sort of validation at the right time.

So for example, often in the linkification example that Ed gave earlier, which is you have some text and you want to turn something that looks like a domain into a link. In a situation like that, it may be helpful to have a list of TLDs in order to say, if you see something.something, is

that likely to be a domain name or is it just someone saying, "I went to the store period. And then I forgot to put some spaces and bought some food." So store.and might not be a very good domain name, especially if we know that "and" isn't on a TLD list. But if we get that wrong, it's not particularly damaging.

So you could imagine a look up there where you wanted to very quickly check a list so we weren't very slow, but if we got it wrong, it was no big deal. So getting a list a like the PSL or even root data and updating that once every six months or something like that, it's probably not a huge deal if we get it wrong.

On the other hand, if we're going to go through a process where we're trying to verify a domain name for some security procedure, we might want to be sure that we're always 100% accurate about whether a domain name is live. And so there, we might want to actually look up information from the root to see if that name resolves. And it might be worth taking the extra couple of seconds that it would take, in that context, to actually perform a live DNS lookup. And you might know that you're always online when you're doing this sort of test.

So there's a variety of different solutions that need to be developed and encouraged for developers. As Gerv mentioned in his talk, the PSL's a tool and certainly better than what a lot of people do.

Ram mentioned having domain names that were three characters or four characters long or the notion that a two-character or three-character domain name was more likely to be accepted than something longer. Turns out something that's shorter than six characters might be a lot more likely to be accepted than something longer because until

this current round of TLD expansion, .museum was the longest TLD out there.

So a lot of people have rules in their code that say things like, "Is it more than six characters? Er, can't be a TLD." And so now, new TLDs like .photography are running into these sorts of problems. So that's certainly a bad solution. It's not adaptive, and it doesn't stay up-to-date with things that the Internet's going to do.

So speaking of staying up-to-date, the one other thing I'll mention is that we need to be very conscious of how long it takes to update things. That six-character limit I mentioned earlier, we actually had a flaw like that in Gmail, Gmail wasn't recognizing any domain names that had TLDs longer than six characters. But from the moment the bug was reported until Gmail was fixed live was 11 days. So that's quite good. For online systems that are hosted in the cloud, we could fix things quite quickly.

On the other hand, something like the Chrome browser, it's built every six weeks. It automatically deploys to most desktops, so it has a relatively quick refresh cycle compared to a lot of desktop software.

But even there, you're talking about 12 weeks potentially from the PSL getting updated and incorporated into a new build until it's actually out there. So you may see TLDs that get delegated, put into the PSL, and still have to wait four months until they're actually—sorry, three months, I'm terrible at math—three months until they actually resolve correctly within Chrome or until Chrome treats them as a domain name as opposed to a search query.

And then there's other uses out there in operating systems or in programming languages. So instead of taking in the case of Gmail days or in the case of Chrome weeks, now we're talking about months maybe or much more likely years in order to solve some of these problems.

So it's important to think about the rate at which the information can be updated relative to the use case. And if you're going to deploy code that's going to stay out in the world for years, then that code needs to be much more adaptive than code that gets updated every couple of weeks.

So I think I'm looking forward to working with ICANN to developing the right tools and some best practices so we can get developers on the right track to doing these things as opposed to silly regular expressions that test how long a domain name is.

FRANCISCO ARIAS: Thank you, Jordyn. Michael?

MICHAEL THATCHER: Okay. I think I'm going to segue off of what Jordyn just said in terms of the time it takes to bring things to market. And particularly within a Microsoft context, some of our products the release cycle is much slower. So that, in turn, will have an impact on our ability to move forward.

One of the other things that I see as affecting all of us is the stability of the standards that are being used. Particularly in the case of EAI and e-mail, there have been some stability issues with that. And our ability to

actually get something that we can then commit to is something that's slowing us down.

Security is another major point of focus, how this is non-negotiable on some levels. Some of the changes that have taken place over time as we've begun to adopt have created some security issues for us.

There's also a legacy migration issue in terms of the actual install base. From a browser base perspective, this is simpler if the browser can handle the different changes. But in terms of the actual what's in place, that takes longer.

We've also had some challenges around character mappings and some of the different ways that different characters can be represented in the same way. This creates, again, a security risk potentially around phishing attacks.

I think the example that I've seen is around a Cyrillic lowercase "a" and the Latin lowercase "a," which can be represented in the same way in multiple fonts. How we sort through this and how we find a way so that the user experience is good and also safe is an area that – particularly from an industry perspective, I don't know that this is ICANN's area to focus on – but those are some of the issues that we're looking at.

If I think about the question of what can—well, actually, I want to call out one last one, which is in terms of actually validating some of the work that we're trying to do and in dedicating development resources internally.

One of the things that we've seen is despite IDN support and ccTLDs, the majority of the traffic still seems to be ASCII, and so the adoption

rates are slow. And one of the questions that I think – this, I believe, ICANN can look at – is how do we raise awareness and raise adoption rates so that this moves forward more rapidly?

I do think that the IDNs and the ccTLDs is an area where there should be – and in many cases, there has been – a broad and also government-wide support to bring the national idiom into the technology space. And so I think this could be an area that would gain faster attraction. I'll leave it at that. Thank you.

FRANCISCO ARIAS: Thank you, Michael. Rinalia?

RINALIA ABDUL RAHIM: Thank you, Francisco. I would like to say a few words about the user – specifically, end-user – perspective and a very simple way to start is I would have preferred that the session started with the end-user perspective and then moved on to the technical and business issues. But since we did it this way, that's fine. Perhaps the next time, we can rotate it.

The problem of universal acceptance affects both ASCII TLDs and IDN TLDs. My focus is more on the IDN TLDs because that is the focus of the At-Large IDN Working Group. And for those who do not know, the At-Large community is a community of individual Internet end-users around the world.

I would also like to recognize members of different language communities in the room who have concrete examples of universal

acceptance problems that affect them, that limit their use of their own scripts and languages on the Internet. And I would expect them to participate during the question and answer to highlight these examples.

Whenever we talk about universal acceptance, the first thing that people say when we say that we need this fixed, they will say, "We need a business case. Where is the business case for it?"

So about 30% of the world's population are Internet users. We know this at the end 2013. And nearly half of them are in the Asia-Pacific region. And the regions – and I say plural – regions with the highest expected growth of users over the next decade have a high demand for IDNs.

That's a market case: 64% of the world population currently do not use the Latin script. So the market potential for IDNs is actually quite good. The Catch-22 is that in order for the IDN TLDs to have value, you need to have universal acceptance in place. Otherwise, it's not able to create that value and generate more value.

So I would say that from an end-user/user perspective, the expectation is that we must have universal acceptance. End-users expect domain names to work when they type it in, and registrants expect their domain names to be usable online. Not being able to do these things affects consumer trust in the domain name system. So the problem needs to be fixed.

In terms of roles, Ram Mohan has indicated that what is needed is coordination among far-removed actors. And he says that ICANN needs to step into this role. And I actually agree fundamentally because

approving and delegating IDN TLDs – or TLDs in general – without having universal acceptance in place is equivalent to having a failed TLD program where end-users are concerned.

So I think that ICANN has a responsibility. But I also think that the problem is a shared one. It is a collective problem and a collective responsibility. And that is the emphasis that we need in moving forward.

In terms of, "What can we do?" I think that ICANN needs to do awareness-raising. We need to capture examples of the problems, and these examples can come from the community because there's a lot of wealth of information and knowledge there.

We need to have advocacy on the importance and gaps in universal acceptance. We need the leaders of ICANN, the staff of ICANN, the community representatives and leaders to go out into the world to highlight this.

And we need representatives to reach out to the developer community because we need them to understand what the problem is and to work together with us in coming up with a solution and also to encourage developers to share best practices. So that's my contribution, thank you.

FRANCISCO ARIAS: Thank you, Rinalia. So now I would like to move to the next part of the session. I have noted here some questions by hearing of the presentations that were given by the panelists. And I would like to start with perhaps a basic question. Do we – those that are here – we have a

common agreement on what is the problem or problems that we are trying to solve?

RAM MOHAN: I think there are—it's not just a problem to be solved. I think we had a look at what are the expectations and who are the people or who are the organizations, who are the actors and what their expectations are. I think that is a useful construct to come at this, right?

If I'm an end-user, I have a particular expectation when I buy a domain name or I get an e-mail address. I have a particular expectation about it, okay? If I'm a company, if I'm an ISP, for instance, who is in the role of in some ways curating traffic, I have a different kind of an expectation.

I would say that at a very fundamental level, the very first thing is to get a common, a harmonious set of expectations among these different players.

To get there, you have to identify what this landscape, who are the players involved? We've heard Rinalia, Jordyn, other folks speak about some of the actors and the players involved, but I think we need to get that defined and, once we get that defined, have a clarity about what are the expectations of those folks.

Only then, I feel, can we start to meaningfully talk about how to solve the problem because the problem space is not only fractured but a solution for one set of actors may be incomplete for another.

FRANCISCO ARIAS: During the presentations, I hear a few examples of the problems that we have. Someone mentioned perhaps there is a need to modify some protocols to have them support internationalized domain names and perhaps other internationalized, let's say, tokens – protocol tokens – and not just domain names.

One of the presenters mentioned that this is perhaps an issue of validation of the TLDs in the software, which means a completely different issue in regards to modifying protocols.

But also, I believe there was a mention of perhaps this is an issue of the user interface, where the user interface of certain systems does not allow the user to properly use their local script.

Are all of these problems that need to be solved, or is just the focus of this effort should be only on some specific part of these examples of problems that were mentioned here?

MICHAEL THATCHER: I think the "New York Times" example that was given is a great example because that's probably some very specific running code that didn't know how to handle the additions.

Now, with the large organizations, we'll be the fast adopters. But it's the existing implementation base, irrespective of the browser or the apps that are running. It's their apps that are built in-house that if they can't handle it or they've set their own rules, it won't let them do that, that's going to take time.

So I think in my mind, we're in a little bit of a chicken-and-egg where adoption will drive that change. If the "New York Times" was getting e-mails on a daily basis saying, "Why aren't you supporting this particular domain?" that would change fairly quickly. They're not getting that today. And so again, I think that will tip the balance.

UNIDENTIFIED MALE: Go ahead.

ANDREI KOLESNIKOV: Oh, sorry. Yeah, it would be good if I say this. Just trying to send e-mail, "The address andrei@kolesnikov.ru in the field 'To' was not recognized. Please make sure that all addresses are properly formatted." That's a Gmail response.

Actually two months ago, I was able to send it for the Cyrillic domain name address with a Latin user name. Now, it's not working. So I guess there's something going, and it gives me hope that it'll be finally working.

JORDYN BUCHANAN: So your guess is correct, there's something going on. Nothing to announce quite yet, but we do have people actively working on a variety of products to make sure they're compatible not only with new TLDs in general but with IDNs in particular.

And IDNs and e-mail are, obviously it has been mentioned previously, a harder target than a lot of places, so the work there is a little bit more

complicated. And as we get to things like inter-compatibility testing, there's not even that many implementations to test against.

To tie back to Francisco's point, I think there are a broad range of problems. I don't think we can successfully manage or expect that ICANN is going to solve all the problems of the world, but I think what ICANN can do is help create templates for solutions; help convene developers to create common libraries that people could use, for example; could create best practices that could be documented; and maybe just convene discussions of technical people.

This wouldn't be good at a ICANN meeting like this because we have a lot of policy people running around and a few technical people very focused on a small set of problems. But you could imagine, you guys could invite some people to L.A. or have a standalone conference adjacent to an IGF conference or something like that where some of this work could take place. That, I think, would be very useful.

RAM MOHAN: Another area where some focus needs to go into is the standards organizations that work in the mobile area. If you look at Firefox, for example, in my experience a new TLD that worked perfectly fine with Firefox for a desktop completely failed on a mobile device.

And there's a new world of development and developers who are just entering or who are—it's exploding, but there's a lot of work going on there. I think there's a tremendous opportunity to affect that community. So it makes sense to be present where mobile developers are present and to express themselves.

Just a quick anecdote: at the end of December, ICANN delegated .ceo. And so I, a little while later, went into my browser and typed in nic.ceo. It took me to nic.co, and that was because of autocorrect in either the ISP or at the browser. I don't know which. And in that case, both .co and .ceo were on the Public Suffix List. It's not that it didn't get recognized. But certainly, .ceo didn't get accepted. It got mistaken as .co.

FRANCISCO ARIAS: So, Marc, I guess you are trying to sign-in in the queue for questions. If you give me ten minutes more, and then we will get into the Q&A session. Before opening the floor for questions, I just would like to get to the other part of the problem that was already some comments here.

So what is the role of ICANN here? It seems we have a set of problems. I heard that ICANN could facilitate, for example, providing some templates on how to do a proper validation of TLDs, which is one set of problems.

What about the other problems that were mentioned for some protocols that may perhaps need to be internationalized? There was, as far as I understand, [inaudible] the idea of internationalized e-mail.

But what about all the protocols that may need to go through the same process to be updated to support internationalized tokens, not just domain names? Is that a [inaudible] role for ICANN, or is this the role of someone else? What are the cases in which it's perhaps a user interface problem? Does ICANN have a role in that? What is it? Anyone?

ANDREI KOLESNIKOV: Well, I think the role of ICANN should be very simple and straightforward. First of all, I do not think that the working groups or groups of engineers should really dig deep into the coding and the lines of codes and try to define all the problems related to the IDN support because the coding world, the application world is much bigger than the address space world. Let me put it like this.

However, ICANN should clearly set a target for the community and for the ICANN to air this problem, to keep pushing the guys who develop the code that there are domain names which are not [inaudible].

And this should be a major role of ICANN. Really, as a driver of this issue, push it to the leading brands first. I think it's very important that the most powerful applications like social networks and search engines, in the [inaudible] Gmail platforms and e-commerce shops, really, they should pushed by ICANN.

Just keep pushing them like, "We still have this problem. We still have this problem. Please remember about this, and keep your development in the appropriate way." And that's how I see the role of ICANN, actually, without getting into the specific details. Thank you.

FRANCISCO ARIAS: So is there a role for anyone else in the community to help in the universal acceptance of TLDs? And if so, who else?

JORDYN BUCHANAN: Sorry, Francisco. So one thing I'll say is that certainly one benefit to this new round of gTLD expansion and the broad range of applicants is that

there's a lot more invested stakeholders than there were in the past. So it's certainly a lot easier for me to walk around to the folks that work on Gmail or Chrome and talk to them about why they should care about this issue when we have our own stake and our own TLDs involved.

And I imagine that's the case for even if it's just applicants that have .brand TLDs, if they're planning on making use of them, they probably want if a company like – I don't think the "New York Times" applied for .nytimes – but they may care more to fix their web forms to make sure they accept all TLDs if they had their own TLD.

So I think that there's a broad range. Everyone that writes code in the community needs to be a little bit involved to help fix this. But a great place to start is, obviously, folks that have applied for their own TLDs and have significant online presence or developers of offline software.

RAM MOHAN: Just to add on top of what Jordyn said: this really not a problem that ICANN can solve by itself. It can help coordinate. But I think probably the most important thing that ICANN can do is identify who else and which other organizations stand as bodies or associations, etc.

It should connect with and explain the necessity of a solution to them. Because in most cases, it's ignorance or apathy that is what you have to counter, and you have to find a way to overcome that. To me, if you do that, a lot of the rest of the solutions will flow from there.

RINALIA ABDUL RAHIM: Not from the technical community, but if you recognize that perhaps the problem stems from lack of awareness, then the media could be a partner when you target specific magazines that feed into specific communities, that are technical- and business-oriented that could help spread the message and gather more of the stakeholders together. And then, that would help you convene more of the relevant stakeholders.

MICHAEL THATCHER: The one thing I'll add is I think one thing that took place within my company was the actual creation of – or the inclusion of – a support for TLDs in the signoff process for code development.

Now, that's true for TLDs. It's not true, necessarily – you know, as I said, e-mail is still in process right now – but once you can actually tip the balance so that a company commits to actually adding something to their signoff process in development, that's a huge step forward.

FRANCISCO ARIAS: In that regard, Michael, and as a follow-in from something that Rinalia mentioned when she was presenting and that you also mentioned when we were preparing for the panel before, the business case for solving this problem. Do we have a business case?

MICHAEL THATCHER: That's a dangerous question. But I think there's a business case, but maybe it's not being articulated. And I think that's possibly where I see the greatest impact that ICANN can have is actually getting the story out there so that that business case is unquestioned.

FRANCISCO ARIAS: So now I would like to go to the next section of the session. And I would like to open the floor for questions. Marc?

MARC BLANCHET: So part of this problem space is related to identifying domain administrative boundaries, which is somewhat solved or tentatively trying to be solved by the Public Suffix List.

Recently, at the last IETF, there was a [boff] about this exact problem. And IETF is currently now having a design team to look into the problem statement of the domain administrative boundaries. So you were saying who should be involved. I think there may be some protocol at work that is going to be done in the IETF but remains to be seen, just for information.

FRANCISCO ARIAS: Thank you, Marc. Any reaction on the panel? Next question, Edmon?

EDMON CHUNG: Thank you. Actually, as a co-chair of the JIG (the Joint IDN Group that Ed Lewis mentioned earlier on), I wanted to kind of highlight that particular part because I think a lot of what is said today really reconfirms the recommendations that the community came together and produced over two years. I want to highlight that the recommendations really talk about that the most effective role for ICANN really is take it to the strategic level and – as many people talk about – create momentum.

You asked about the business case. Probably can ask the same thing for IPv6 and DNSSEC. Those are things that I think ICANN needs to take on and take it on at the strategic level. And perhaps next time, we might need the comms team here along with the technical side because I understand, Francisco, a little bit more from the technical side. There is a component for that, but the advocacy angle of it is probably far more important in terms of the role that ICANN can play.

And another really important thing which sort of covers part of it is one of the recommendations really means get our own act together – get the registry and the registrar systems together.

Ram pointed to a very good point. I mean today, when you go to register an IDN with an IDN TLD domain, it's very difficult to handle it in the hosting level. A lot of registrars also provide hosting services.

So by creating a kind of—I will shy away from using the word "policy" – but at least a policy element where ICANN can directly influence such that registries and registrars who actually provide IDN registrations or TLD registrations to have actual universal acceptance for that at that level, which will then trickle down to a lot of hosting systems.

And that creates part of the demand, as well. Right now, it's kind of a chicken-and-egg because it's very difficult to utilize IDNs – especially IDN TLDs, as many have mentioned. I think those are two big – and I believe it's an A and B – which is take it to a strategic level and get our own act together.

And then of course, there are tools and materials and best practices, as Jordyn mentioned, that we can produce. But I don't think we need to expect that those would be used by everyone on the Internet.

Those are sample codes or sample FAQs that registries can use. Those are samples that should cover a pretty broad range of things from user experience all the way down to technical part. I think, Francisco, you asked the question, where [inaudible]. But I think ICANN only needs to do a little bit of everything as a showcase, not expecting everybody to download the piece of code and use it.

And then finally, to take it outside of ICANN. It's great, I love having this conversation. We've had it for two-and-a-half years with the JIG and on this particular issue. We got to take it outside of ICANN. We got to go out and talk about in other foras. I think multiple people have mentioned that, as well.

And we did, actually, in the report, look into it. We did discover one particular technical consideration, which is the Public Suffix List. I think Marc mentioned and others mentioned, as well. And the question there might be a little bit more technical for ICANN, both in terms of the scope of what you do and the actual technical implementation.

Are there things that ICANN could do or services that ICANN or IANA should be providing that would make it easier? Is, for lack of a better word, replacing the functions that I think Gerv mentioned earlier with a more authoritative list, a Public Suffix List that is actually produced by ICANN. I know that Steve is now working with them closely, but what about ICANN doing it? But that's part of the recommendation, as well.

So I think all in all, the main thing is really that right now, we have the opportunity with both the IDN ccTLDs now that are also having the problem. New gTLDs are having the problem. So we have a communitywide sort of motivation to do this.

And now's the time that I think ICANN could kind of take the lead if the CEO, Fadi or Steve, when they talk, when they have chances to do keynotes, bring this up.

They often bring up IPv6, often bring up DNSSEC. Bring this up. When they meet with the government officials, the presidents of governments, bring this up. This is a kind of level that I guess this particular issue might need. And I think it should be a meaningful thing for ICANN to do. Thank you.

FRANCISCO ARIAS: Thank you, Edmon. Before going to a next question, I would like to highlight something that you mentioned that caught my attention.

One thing I heard you say is that perhaps one of the first things that ICANN needs to do – and here, ICANN, I mean the big ICANN, not ICANN the corporation – is fix the issues in our own house, for example, the provisioning system, to make it sure that it's supporting all the new TLDs and IDN ccTLDs before we go outside. Do we have any reaction from the panel on this regard?

Okay, so I guess I'll go to the next question. Before going to you, Don, is there a question from the remote participation? Mary?

MARY WONG:	Yes, there's several questions from the remote participants. Maybe what I can do is read them out. There's a couple for Michael, one for Jordyn, and one for Ed.
	So starting with the ones for Michael. Michael, I guess one question is, "When will Microsoft support internationalized e-mail or EAI?" And the second is, "You mentioned government when you were speaking. What do you see as the role of government?"
	Jordyn, the question is, "What was Google's solution to the problem of more than six characters, and why did you choose that solution?"
	And for Ed, the question is, "You had seemed to mention that it's a technical problem, whereas Ram seemed to indicate that it might not be at least a fully technical problem. So, Ed, what do you see as the non-technical issues?"
MICHAEL THATCHER:	So with regard to the question of support for e-mail, I don't have a date to give. All I can say is that it is being worked on.
	The role of government – and I'm glad that question was asked so I can actually scope it – because I'm thinking of that in terms of international domain names and particularly ccTLD. And there have been several governments that have taken active roles already: Saudi Arabia, China, and a handful of others.
	One of the questions, particularly in my role within Microsoft to focus on the public sector, is being able to access the power of technology in their own language. And I think the point that was made earlier, it said

64% of the world is not using a Latin-based character set, and we need to go the full distance on that.

And governments are pushing for this as a national pride, a national sovereignty, from an education standpoint. So I think governments can encourage this and are encouraging it and are speaking to us about localization at all levels.

JORDYN BUCHANAN: Yeah, so to answer the question directed to me, so yes. The fix is, obviously, not to use a silly test of how long of the domain name is but to actually validate it against a list of domain names.

ED LEWIS: Yes, so the question that was directed to me, actually, it occurred to me as I was speaking that I should ask that question of myself because it's right. We were saying it's not technical, but I'm saying in the start it's the technical hurdles we're after. Part of it's interpreting these words, here.

The thing is, we know how to use domain names. It's not a matter of trying to figure out how do you do this stuff correctly. It's not like we have to go back and redesign protocols [inaudible] like the beginning. We don't have to do a lot of the engineering to this.

The problem, though, is that people have been building software for a long time. And building software and developing standards are two different areas. Two different types of people do this. And I've seen this in many ways in the work I've done in DNS over the years is that people

want to protect me from the Internet. My clients' software is trying to protect me from getting into a bad place on the Internet. So a lot of developers will put in checks, "if" statements saying, "If this looks really bad, don't go there."

The problem is we have to get to people in the non-technical side saying, "That 'if' statement's a bad idea." That's the non-technical parties explaining to developers, "Don't protect me from myself this way. Be cleaner in the way you're protecting me." That's the message that has to go out there. Those tool developers have to look at, "What am I doing to protect people? And if it's a bad idea, don't follow bad heuristics. Don't follow these shortcuts that you shouldn't be following."

It's a basically a communications problem to the technical people out there that have to go and fix the widgets that are just not being built correctly and haven't been in history. It's a degree of what is technical, what is not technical. It's definitely fixing pipes and plumbing out there that weren't built to-code originally – another way to say it, I guess. Hope I dug myself out of that.

FRANCISCO ARIAS: Thank you. I believe Don is next.

DON HOLLANDER: Thank you very much. I'm Don Hollander from APTLD, and our members have a very keen interest in the IDN part of the universal acceptance issue. We have a workshop or a meeting in Oman in a couple of months where we're going to put a lot of focus on this.

But just to answer one of the questions as to who should be involved in this, and I agree that it's not ICANN other than ICANN can use its position to raise its profile. But I think the ccTLDs – particularly the IDN ccTLDs – have an opportunity to engage with their local developers. So they can go to their local IT meeting or local software developers meeting or whatever and just introduce the concept and some opportunities and solutions.

We know that TW (Taiwan) and China and Saudi Arabia have all three developed e-mail systems that work within themselves in terms of the IDN. So they're making progress there. The question is: what happens when the e-mail goes out of that nice, safe system and into somebody else's system, and it somehow gets mangled and, in fact, sometimes never arrives?

So I think there's a list of issues. APTLD's just about to produce just a single-page list of where we think the problems are, and we'll put that on our website in due course. If anybody wants a copy, they can have that.

But I think the registries that have the problem have, I think, an obligation and an opportunity to go their local community, as Ram did when he couldn't send e-mails. Now, I don't know how people can send an e-mail to the "New York Times" saying, "My e-mail doesn't work" when their e-mail doesn't work.

RAM MOHAN: FedEx.

DON HOLLANDER: Fair enough.

LISA BOX: Yes. Hi. Lisa Box. I represent Endurance International Group. As a representative of a very large registrar – Dotster, Domain.com, HostGator, BlueHost, and the hosting community – I actually think that ICANN definitely needs to get more involved in the, not only delivery of gTLDs to the market for registrations, but also the operability of those.

We have not seen enough, I don't think, from the various groups for things as simple as Jordyn said – just the length being limited on the hosting platforms or e-mail not being deliverable. And I think that if we as a group want to make this successful, we should think about creating some sort of committee that is technical in nature.

I'd like to know how we could go about doing that, in terms of having forum, best practices, and sharing, as you said. Because I know that, personally, as an advocate for the innovation of new TLDs, our company is working in making leaps and bounds at trying to get this out to our customers. As being one of the largest hosting companies, we are the first line of defense to those customers, and they're definitely facing the challenges that have been discussed at this table.

We've talked about very specific, detailed issues. There's a laundry list of them out there, and I think if we can share this as a community, we would be able to fix these problems in a lot less time and actually get the working of the TLDs out there faster.

So my question to you is: what is the best way to go about creating this type of technical committee where not only registrars, registries, and

the various ccTLD operators are there, but also the hosting companies and the website companies that are actually delivering the mechanisms for the websites for these new TLDs?

ANDREI KOLESNIKOV: In terms of coordination, I believe that – again, without getting into much details in the technical field – I think ICANN. And, for example, the JIG Working Group, it's a good example of how people can get together and try to work out some examples.

For instance in the JIG, there's a whole set of supportive documentation and analysis going through the work group members and examples and very particular samples of the behavior. I think it's just a matter of people getting together, organizing a kind of work group of hosters, for example.

For instance, I will give you one example: there's a company called Parallels, which produced the hosting platform, including the cloud solutions, etc. And because the engineers there, the guys from Russia, their system by default support the IDNs. I mean, there is no problem in the application field in developing the widgets and hosting things. It's just the guys who's actually, they use different script in their life, so they decided to build a system which supports IDN.

I think it's very straightforward and I believe the market, I don't know, like Chinese [populace] speaking market and Russia Cyrillic engineers, there are solutions around. And it's just a matter of how you pick it up and how you deal with the guys. I think it's a coordination effort. Just call up the guys.

FRANCISCO ARIAS: Thank you. Oh, go ahead.

MICHAEL THATCHER: I just wanted to—there was one possible modification to the approach of actually ICANN taking on the technical work. It would be more gathering the technical requirements and ensuring that they go into the right standards bodies, rather than actually going into creating competing efforts with entities like the IETF, because I think that could fracture rather than move us forward.

RAM MOHAN: And yeah, and concur with that. The other thing that I'd like to note is that the solution that works in Singapore may not be the solution that works in Russia. So it might be developers, but it might be a set of mobile developers in one part of the world and maybe a different set of developers or other folks in other part of the world.

                         So I think that's where ICANN's role perhaps is best expressed: figure out who are the right actors in different spheres and engage with them. Because I think a panel or a working group created inside of ICANN or a PDP or whatever it is, is going to fall so far short of what really needs to be done here.

FRANCISCO ARIAS: Thank you. We are running out time. I would like to close the queue and ask if you could keep brief on the questions.

WERNER STAUB: My name is Werner Staub. I work for Core. We work with new TLDs that have a double problem of being longer IDNs and so on – all the kind of things that would typically be filtered out. But there are other TLDs being launched that have very specific purposes where we have another opportunity that could be addressed at the same time, namely, the public needs to know the purpose of those TLDs.

Now take for instance, a TLD like .bank – no, we're not associated with it, but it's just taking this as an example – .bank makes sense if it is a secure TLD. Now, if the browser doesn't know what it's supposed to be, it cannot be used to actually automatically verify a certain number of things that can easily be verified in the computer-based system simply because it has no idea where to read about the properties of the .bank TLD and so on.

In the case of any IDNs, of course, people don't even know how to pronounce if they're not from that country. But it is necessary that some people would even be able to find some information.

So being able to have a Public Suffix List is a good idea, but when we do that, why don't we just add additional sockets for that to be able to describe policy rules or additional information that is of use for the users? Information about how the TLD is supposed to be used in the context of heuristic aspects, such as auto-completion or suggestions by the browsers.

In this way, the browsers developers if they start working on it, they have a little bit more that they can reach than just making sure that new

TLDs are going to be supported. But also to improve what is now in the existing TLDs something has to be done. Because in the existing TLDs, the user does not quite understand what's there, and the browser cannot really help the user to understand what there is. Thank you.

FRANCISCO ARIAS: Thank you.

MIKEY O'CONNOR: Hi, all. Mikey O'Connor from the ISP Constituency. Francisco, as I listened to your questions of the panel, I started trying to triangulate into what you're trying to figure out. And I think you're on exactly the right track. I'm not sure I got a lot of satisfaction out of the answers that you got, but I think you're asking exactly the right questions.

What's the customer? What's the problem we're trying to solve here? Who's the best person to solve it? Mostly you got technical answers. This young woman – whose name I can't read from this far away – I thought got a really unsatisfactory answer, and she was so frustrated when she went back to sit down. My heart went out.

But I think that, you know, I've stood in this meeting for I don't know how many years, and I've heard Ram's story I don't know how many times. Every time I hear, he's got a cooler idea about how to get to big kids. But, you know, we're missing the point.

You know, this is like the Life cereal ad where everybody says, "Ugh, I'm not going to do that. Let somebody else do that." Some people say, "ICANN should do that." And ICANN goes, "Holy mackerel. Really?" And

other people say, "Well, the registries ought to do that." Poor Edmon, I mean, he's been living this for longer than I've been alive, I think.

And so, I think what we need to do is step back from the standard conversation. I think your questions are exactly right to start the next conversation and sort of reboot this. Because if we keep sort of walking down this same tired trail over and over again, we're not going to be any further along five years from now than we were five years ago when I first heard about this. Sorry to be such a grouch, but we've got to think differently about this.

FRANCISCO ARIAS: Thank you, Mikey, and it's part of what we're trying to do here. We cannot fix the past, but now we can do something new in the future. Thank you. Please?

MARC TRACHTENBERG: Marc Trachtenberg with Winston & Strawn. I'm a member of the IPC and honorary council to the BRG. I just wanted to say that to the extent that awareness of this issue can be increased, I think there is the potential that it could erode end-user trust in new gTLDs. In other words, people could say, "Oh, these things don't work. I don't want to use them."

And so I think that that could be very damaging to the program. And the message has to be crafted very carefully to raise awareness of the issue but to not destroy the program by eroding trust in new gTLDs.

FRANCISCO ARIAS:	Thank you.

UNIDENTIFIED MALE:	My name is [inaudible]. I'm from [inaudible] University of Japan. And I'd like to speak on behalf of NextGen@ICANN. We are a group of students from all over Asia using English, which is based on the Latin script. I guess, we were sort of raised growing up in a global environment and saying, "Yeah, we need to know how to speak English in order to communicate with other people in the world."
	But this issue of IDNs, TLDs is sort of targeting those people that don't speak English or use the Latin script. So I guess from a younger person's perspective, where is this globalization heading? And is this supposed to promote us to be more involved in a more global economy? Or is this supposed to keep our nationalistic pride or point of view? Thank you.

RAM MOHAN:	Thank you for attending our session, actually. It's a good question. From my perspective, in particular reference to your question in enabling the IDN part of the global DNS, I think the idea actually is to enable different people in different regions of the world to comfortably communicate using the Internet in their own local language – freeing them up from having to use ASCII characters perhaps in combination with their own particular script.
	To answer your specific question, it's actually to enable more flexibility, more freedom for people who are not familiar with ASCII character-led languages like English to be able to use the Internet, which is a fantastic

tool for all things social, economical, and educational. So I hope that answers your question.

UNIDENTIFIED MALE: Yes. Thank you.

UNIDENTIFIED MALE: Hello, my name is [inaudible], and I'm from Hong Kong. I'm also speaking on behalf of NextGen@ICANN. And we're discussing the universal acceptance of IDN at our Board meeting on Thursday, so it only makes sense that we listen to your views before we present our own.

My question is that if we have the universal acceptance of IDN and domain names in different languages, what about the hardware? Are we required to have keyboards enabled with different characters? If yes, who takes care of the hardware and where is the investment or who is responsible for providing it? Is it the technical team or the governments or the ccTLDs? And if not, then how is it worked out? Is it the software, some kind of software that a technical team uses to enable or facilitate it? Thank you.

MICHAEL THATCHER: I think the short answer is that industry should be stepping in there. I don't know that you're going to see governments or ICANN or others actually building new devices or hardware. It will be industry-led, based on the business case.

FRANCISCO ARIAS: Thank you. And with this, we close the question and answer section, and I give it back to Cyrus.

CYRUS NAMAZI: Thank you, Francisco, and thank you, all the panelists. Good, lively discussions here. I actually was reviewing my notes, and I went back to the three questions that I asked at the beginning to see how well or how close we came to actually giving an answer to them. So I'll repeat my questions back to you, and maybe you can help me see if we can articulate an answer to them.

So my first question at the beginning was: how do we synthesize the statement of the problem so that everyone is on the same page? I would say we came pretty close to it. I don't know if the rest of you feel the same way, but I think we managed to get on the same page. There's probably still some dark corners here and there that need to be illuminated, but I think we made good progress there.

The second question that I asked you or asked us was: what steps should we be taking as a community to address these issues that we just articulated as a statement of the problem? And for that, I think we had a very wide spectrum of opinions and ideas. And I was happy to see that there was quite a bit of focus on what ICANN can do to help in that regard. I was happy to hear Rinalia saying that it's really a collective community effort. But ICANN, because of its role, because of its place in our multistakeholder community, can play a particular and special role.

And I heard the following words that ICANN can really help "lead," "coordination," "outreach," "education," "creating momentum through

advocacy." I mean, these are all really good words, but to me it didn't really connect the dots into, well, what am I supposed to do when I go back to United States with our team at ICANN? What am I supposed to do? So maybe before we close the session, you can actually help me connect those dots there.

So the types of things that come to my mind in terms of how we can move this effort forward – going back to Mikey O'Connor's words – I have actually no history in this exercise. I'm just too new to ICANN, so there's no going back to how we used to do it because I don't know how we used to do it. But we're just going to look forward and find the best answers for it.

So should we be constructing a committee of volunteers as the next step? Help me answer these questions before you go. What should we in concrete steps be doing as a community to move this forward? Edmon, you have any thoughts? Please.

EDMON CHUNG: Certainly. I guess I think the panel actually outlined a few items I think that kind of can be an action item. One of which is what we probably need is it's kind of a communications plan, if you will. And ICANN can probably help draft that and identify the areas where this communication can go out and where ICANN has more participation already and where ICANN needs to start establishing a connection.

One of the suggestions was looking at maybe having a session at IETF, a separate session at IETF. That's kind of a communications plan, I would say, to advocate this whole thing.

In terms of getting people's help, I think getting volunteers to help chip in shouldn't be a problem. It's always a challenge. It's usually good when ICANN takes the lead on it. My experience is that especially the initial period of time. And if we can sustain the momentum, that will be great.

Because in the last few years – well, actually, the last ten years – we've talked about this. It comes and goes. It's wanes in terms of level of enthusiasm, especially because when there are not much results or things start getting into a normal situation. Like when the new gTLDs launched, everyone is enthusiastic about doing something on this. When it's launched for a little while, I mean, even for .info or for .asia – we are now at steady state. More places are accepting. There's still lots of places that are not accepting, but our enthusiasm as an organization drops a little bit.

So to sustain that, that will require ICANN's sort of approach and [inaudible]. I think that's fine, but more importantly, perhaps think about a communications plan, really – at least in my mind – and put this on a higher strategic priority at ICANN. That's my feeling. I'm sure the panelists would probably have a thought.

CYRUS NAMAZI: Thank you, Edmon. Yes, please.

ANDREI KOLESNIKOV: Maybe it should be the IDN stakeholder group maybe should be formed in ICANN. It's one of the ideas. And like a basis of the people and the specialists who's really interested in promoting the IDNs. I think that the

level of importance of this issue high enough to have a, I don't know, stakeholder group. Whatever.

CYRUS NAMAZI: Rinalia?

RINALIA ABDUL RAHIM: I think you need to have a chat with the global engagement stakeholder team, because the vice presidents for regional engagement has specific responsibilities to reach out to their regions. And quite a few of them understand that there are issues related to IDNs, for example. And they meet people in the region. They also go out to do outreach.

And I think that you need to meet together with the communications team, with the GSE team, and talk about: how do we spread the word so that we can gather or convene meetings that will bring the relevant stakeholders that can solve specific parts of the problems?

So you can do it. Either have a meeting and bring people who work on e-mail or browsers, or have them segregated in terms of this meeting will be a meeting of the browser developer community in Africa, for example – just a random example. I think you just need to identify the parts of the problem and who could help you with that and whether you want to go regional or global. Thanks.

CYRUS NAMAZI: Very good, thank you. Any other comments from other panelists? Jordyn?

JORDYN BUCHANAN: Yeah, I was just going to say there's a lot of work going on right now. We're doing work internally. There's a small group of companies that we're working with that we're trying to develop standards as an industry group. There's work from groups like APTLD and others who are doing stuff.

Just having someone from a group like ICANN reach out to all the places where work's going on and sort of document what people are doing and make it clear so we're not duplicating. To the extent people are doing stuff, we're not doing the same work over and over again I think would be super helpful. So sort of just creating a list of efforts. And then if companies are interested in getting involved, they sort of have an easy entry point into existing industry work that's going on.

CYRUS NAMAZI: Very good, thank you. Is there a comment from the floor? We are out of time, I just wanted to add, so please make it quick.

JIM GALVIN: I will, thank you. You asked for an answer to the question, what specific actions could you do?

CYRUS NAMAZI: Yes.

JIM GALVIN:	And I'll give you four of them. They might be a little bit specific, but they ought to be something that would point you in a good direction if you step back and try to generalize.

The first one goes to what Edmon was suggesting and other responses from the team. I think that ICANN is pretty good at creating materials and source materials and making them generally available. So you could create a white paper, if you will, that describes the problem space and then set it up in a resource area of some sort for people to use.

Second option would be that, obviously, the registry operators who have these TLDs that have this problem are at an ideal place to reach out to their own communities that they're attempting to serve and try to create a communication strategy towards those communities.

There are a lot of things that need to get fixed in order for universal acceptance to really be solved, if you will, or resolved. And so by using the registry operators, you can reach out into communities and create some grassroots energy and desire to fix the problem, to perhaps force or encourage – motivate, if you will – changes in applications and services to fix these kinds of things.

A third thing to think about as a related issue here is the Public Suffix List activity. SSAC now is actually looking at that as one of its task items, so there might be a path there for you to talk to SSAC more directly about what they're doing in that space and how that might relate to this and how you could leverage that and use it as part of your resources that you might want to give to registry operators and others.

And as a fourth suggestion, in addition to registry operators, ICANN has worked with the CAB Forum before. And browsers, obviously, are a very significant application and provider for which this kind of stuff matters, and getting them to do the right thing in the presence of new TLDs that are coming out – so many of them are going to come out over the next year.

And so, perhaps reaching out to the CAB Forum and working with them more directly and getting them to work with their communities would be a good thing, too. And they would have some activities, some communication plan that they could develop. Thank you.

CYRUS NAMAZI: Thanks very much, Jim. [Sarmad], did you have any comments you wanted to add?

[SARMAD HUSSAIN]:   Yes. And I guess I'm going to speak from the user perspective and not from the business perspective. I guess I just had a question and from a bottom-up kind of viewpoint, not a top-down kind of viewpoint. And that is, is there a list of issues related to the TLD acceptance available anywhere? And if we don't, then we don't really know what problem we need to solve. So maybe we need to really have a concrete list of issues somewhere, which lists on what are the 10 or 5 or 25 problems which need to be solved.

CYRUS NAMAZI:	It's a very good point. In fact, that would also allow us to prioritize where we put our efforts, I think. Thank you.
	Okay, I think this actually has given me quite a bit to get educated on and digest, I guess. My commitment to you is that I'll take this back, and I'll work with my team to come up with a proposal that we can then share with you. I'm going to put Francisco on the spot here for how long? Four weeks? Okay. Soon, shortly.
	But, you know, somebody mentioned earlier – and I forget who that was – I think really the success of the new gTLD program is really going to depend on us being able to resolve this issue.
	It won't be resolved overnight, but we really have to come together and make sure that the availability of new gTLDs does not lag too far behind the applications that can leverage them because then it's going to be deflated and derailed and all of the efforts of this community over the past seven, eight, nine years, to get this program off the ground – in addition to the existing problems that have been there, with IDN, ccTLDs, and such – will be wasted.
	So we'll come back to you with at least a communication plan like I said at the beginning, the outline of a template that we can then together build on and have a plan of action from it.
	So with that, I'd like to thank our panelists for their time. I thank all of you for sitting here attending it and for contributing to the discussion. So this session is closed. Thank you very much.

[END OF TRANSCRIPTION]