DUBLIN – Universal Acceptance Group Steering Committee Workshop
Sunday, October 18, 2015 – 08:00 to 17:00 IST
ICANN54 | Dublin, Ireland

UNKNOWN SPEAKER: Today is October 18th, 20:15, ICANN 54, Dublin. This is Liffey meeting room two. Session is, Universal Acceptance Group Steering Committee Workshop.

Today is October 18th, 2015. This is ICANN 54 Dublin. This room is Liffey room two. It's 9:00. Meeting is Universal Acceptance Group Steering Committee Workshop.

CHRISTIAN DAWSON: Wait for the clock to say 9:00 and then we'll turn this on. And we have reached the 9:00 hour, so we are going to go ahead and get ourselves started. We only have eight hours for this workshop today, so we ought to jump right into it. And you think I'm kidding, but there is a tremendous amount that we need to get accomplished. And my experience has been that we get the most done face to face.

So let's take advantage of every moment we can, and let's go ahead and get started. I'll officially call to order the second workshop of the Universal Acceptance Group Steering

Committee Workshop. This full day session is supposed to allow participants to work collaboratively to identify the situation and work to develop solutions to deploy.

Before the end of the year, we're going to figure out what we can accomplish between now and the end of the year, on the issue of universal acceptance. I want to walk you a little bit through our day's events first. Don, would you be able to pull up our slide deck, zero, zero?

While we are pulling that up, I want to send the regrets of our fearless leader, Ram Mohan, who couldn't be here due to a family emergency. And so, instead of Ron, you have today… The workshop being hosted by me, Christian Dawson and Rich Merdinger, over there, and where is our…? Okay. Edmon Chung is our third co-vice chair. And there is Edmon, right there. So the three of us are, I guess, your hosts for the day.

There you go. Okay. So, today's Universal Acceptance workshop. Just a real quick look at what it is we are seeking to accomplish today. Throughout the week here, with universal acceptance, we want to talk to you about what we have going on. Today we have the workshop, again, eight hours. We'll be meeting with the ALAC on Sunday from 1:30 to 1:50, and Edmon will be driving that.

Then we have our big public forum session, where we're going to be updating people on our accomplishment and what it is we have decided in this group we're going to be focusing on, over the next three months or so. That will be in Liffey three on Monday at 3:30. That will be our chance to address the community.

Then on Tuesday, we will be meeting with the GAC at noon, and giving them an update on what it is we're accomplishing in this group. The last thing is that Rich is going to make a statement on the behalf of our group here, in the public forum. And so look for that. In fact, we may want to distribute a rough draft of that to this group to get a preview of what it is we plan to say in the public forum.

But that is the list of events that we've got going on for the week. Now let's focus on what it is we've got coming up today. Right now, I'm welcoming you. Then we're going to have Ashwin from ICANN staff give us an update on how ICANN is doing in their UA readiness. At that point, we've gotten around the world conversation on the state of UA. Don Hollander is going to lead us through a nice conversation with organizations from around the world that are attempting to get UA ready.

From there, we are going to move on to a quick talk from Avri Doria, has Avri joined us yet? No. She will be here on time to

talk about UA and sustainability development goals for emerging regions. At that point, we're going to have a break, after that, we're going to shift into content and collaboration. That is two different groups where we're going to be talking about what content we need to develop, and what groups are out there with line goals that we can leverage in order to maximize the benefit of what it is we're trying to accomplish.

After lunch, we'll be focused on EAI issues. Edmon is going to be leading us through a panel there. Then we're going to be talking to registries and registrars about what it is they're doing. After another break, Dennis, Dennis Tan and Rich are going to be leading us through a conversation about how people in computers detect a domain name, how you can detect that something is a domain name from a human's perspective, and how can computers determine that something is a domain name or website.

Then we're going to sum it up, we're going to figure out what our next steps are, and we're going to try to send people home with takeaways, so we can continue this effort beyond today. Now, I guess, we can jump to the second slide deck so I can spend a couple of minutes talking to you about what we've accomplished since the last time we met.

RICH MERDINGER: Excuse me, Christian?

CHRISTIAN DAWSON: Yes?

RICH MERDINGER: This is Rich, hello. Welcome everyone. I'm happy to be here today. Go Daddy has gracefully, or in-gracefully, created some stickers, or actually decals, that go along with universal acceptance. I'll pass them around the room. Please feel free to put them on your phone, your refrigerators, anywhere that you feel acceptance is needed. And, you know, wear the banner proudly.

We can get more, but there is a stack I'll start sending around now. Thank you.

CHRISTIAN DAWSON: That's awesome. And special thanks to Go Daddy. So, now let's talk about what we have accomplished so that we can spend the rest… I'm sorry.

DON HOLLANDER: It's Don Hollander. Just a couple of administrative issues. For people who are not on the UA SG UA discuss email mailing list, if you leave me a card or your email address, we'll get everybody

signed up by the end of the day. The goal here is for active discussions, very relatively few presentations. So active discussions.

CHRISTIAN DAWSON: Yes. This is a workshop. And so as I was going through the things we were going to accomplish today, it's important to note that it is a workshop. So everything we are doing is collaborative. Weren't we also going to pass around a…? We talked about passing around a signup sheet as well.

DON HOLLANDER: So that's the business cards are going to leave with me.

CHRISTIAN DAWSON: Okay. Awesome. Great. So, our agenda for today, focusing on… At first, we're… One second here. Email address, internationalization. As a group, we're going to be focusing on discussing what it is, why is it important? Who is involved? We have, I believe we've got Microsoft and Google who can spend time talking about their efforts around EAI, and we can hopefully have some active discussions here. Post effects is something that we want to talk about, core mail, conversations that we have had with Apple.

We're going to be talking about what's happening here, basically, working on interoperability testing, identifying issues not covered by RFCs, and identifying good practices here. That's some of the things that we've spent some time doing over the past three months. One bit of news is, we're planning a face to face meeting in the first and second quarter of 2016, focused on EAI issues. Don, do you have any details on that to share yet?

DON HOLLANDER: No details yet, but it will be some time in the first half, aiming for earlier in the first half of 2016, and it will probably be in Silicon Valley.

CHRISTIAN DAWSON: Fantastic. So, good discussions happening here. Good progress being had, good collaborations and discussions happening around EAI. Now we can move to linkification. Linkification is the rules that an application uses to determine whether to create a link, browser mail or other based on a string. This is an UA issue because the rules used will determine whether text is considered the domain or not.

The goal of the UASG is to develop some good practice guides that can be adopted by the software industry. So we spend some time talking about linkification today, that's why. Moving

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on to outreach. We have been and will be presenting at a number of forums, including at the global IGF and regional and national equivalents, domain events, ccTLD events, RIRs.

While we're raising the flag and seeding the ground, we're particularly listening to what different parts of the community wants. Core among those deliverables are people asking for documentation at a management level and a technical level, on how they can fix stuff. Once we get this core documentation done, then we expect our focus to shift to raising awareness among the broader software community, targeting specific industries through engagement, presentations, writing articles, seeding attention, basically. Move on.

So registries and registrars. What's involved in getting the Internet industry UA ready? We're keen for small working groups of registries, registrars, and hosting organizations to develop a blueprint for the industry. Some have already started, ICANN, Go Daddy, Affilias and others have started on this journey.

Findings so far is that it is effortful. It will take time, and we're dependent on other parts of the software ecosystem, like email, to do their part. There don't appear to be any EPP issues. But we've been making progress with a lot of these conversations, we need a lot more of them to start.

Measurement and monitoring. Working from the work that Doughnuts has started and brought to us, we've been developing a pilot to test websites for a variety of different email issues, email addresses, a variety of email addresses, including traditional, new ASCIIs, and IDNs. We'll also use the opportunity to raise awareness with web masters. We now have a simple message to send web masters, and it's available in seven languages.

If you guys have been on the list, you've probably seen a lot of that kicking around thanks to everybody who did translations for us. It's fantastic. Moving on. Documentation. Documentation, yeah, and linkification good practices is the biggest focus at the moment. Discussions with CIOs and system architects indicate that they want a CIO's guidebook that outlines the issues, the options, and the pros and cons of each option.

We're now on the third edition of an introduction to UA aimed specifically at CIOs and their staffs. We're working on some use cases, and hope to be able to make available example domains that small developers can use to test their systems. We're updating a fact sheet that was originally published for the ICANN Toronto meeting, and we'll use this for the IGF and other similar communities.

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And we're planning a white paper that helps decision makers decide to pursue UA. All good work here. Now we can, let's see, do we have… What's the next slide here Don? Budget, that's right. So we had a pretty effective workshop in Buenos Aries a couple of months ago, a couple of months ago.

The big difference beyond all of this work that we just discussed here between what we had then and what we have now, is now we have some money to do things. We have the support of ICANN financially, and can decide as a community how we want to apply those resources. Now a lot of the stuff that we've already gone over, showcases what it is we've got planned.

This workshop is going to help further guide the resources that we now have to actually get stuff done. So, this is exciting. Move on to the next one. And we can briefly talk about some administrative issues. Now in addition to having an approved budget from ICANN, we also have an official logo.

So I have taken one of Rich's stickers, got it on the back of my phone, I've also got one on the back of my laptop here. Now it is a decal, not a sticker, so it will come off easily. You don't have to worry about putting it on there. Edmon over here was the creator of the logo. We thank you for your efforts there. I think it's fantastic. And we get the wild card dot wild card, but it also looks like a little bit of a face. I think it's fantastic.

We have a communications review process. Right now, our focus has been to date, on making, on developing materials that we can bring out there into the world. But those materials need to be right. They need to be clear and concise, and they need to be accurate. We've got a review process that allows us to take a document into this group and put it through an approval process, to get it as an official UA document now.

We have an Edmon support person, hey Don, officially, who is helping us, who works for the UASG efforts to help drive us forward as a paid representative. And we thank you very much for your noble great effort in this fight. And we've been putting together, and will continue to put together, intersessional gatherings. In September, the heads of the various groups and subgroups met in Horsham, Pennsylvania, at the offices of Afilias, to help really put some of the bones of what it is we've been trying to do, and drive things forward.

I've found that meeting face to face is really, really helpful on this issue. And beyond, besides the very first workshop that was, I think, the most work that we've gotten done in UA efforts. And so we're going to be doing another intersessional gathering in January 2016 in Washington, D.C. Looking forward to that and to what we can accomplish today.

So thank you all for joining us here. I think we're going to get a tremendous amount done. We are at the beginning stages of taking on an extremely large and important battle, but we are doing it systematically. We are doing it intelligently. We continue to make it a process, and with the help of the people in this room, I think that we can get the job done, really effectively.

So with that, I would like to invite Ashwin up as our very first speaker of the day. We did say that we weren't going to do a lot of presentations, but we are going to start with one. [Laughing]

We want to know, as a community, how ICANN itself is doing, at its own UA readiness. And by taking that in, it can help set the tone for us and what it is we need to accomplish. So Ashwin, if you're willing to come up here and tell us a little about where you are, it will help us out a lot.

ASHWIN RANGAN: Good morning. Thank you again for inviting me to give you an update. Michael, sitting next to me, was telling me a story of how we should logo this. Our mission is to boldly creep where no one has crept before. So this is a story of how far we have crept forward in the last several months since Buenos Aires. In Buenos Aires, you'd given me an opportunity to tell you how we were approaching this problem, and we've continued to make progress on the same pathways.

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So I'm going to take you through a very short deck, but it's not the deck that's going to be important. The important thing here is that we are finding things that we didn't expect to find, as we made progress. And hopefully, in providing some air time to what we're finding, and others too, we learn from each other. And hopefully we'll solve it once and for all, rather than solving it multiple times in multiple places in different ways.

You may recall that last time I had said that we have 84 different digital services that we've catalogued for use inside of ICANN for various business purposes. That number says that we're a relatively small organization. We're not a multi-billion dollar organization. But given our remit and what we do it's remarkable that we ourselves have close to 100 systems that we have to take a look at.

The larger the corporation, of course, that number goes up dramatically in many companies that are multi-billion dollar with multiple divisions, that are perhaps decentralized. The problem really starts with, can you, do you even have a comprehensive catalogue as a starting point? For us, as ICANN to get to the catalogue, is complete starting point, took a good five months of effort with a couple of people.

Because each time I asked for a number, the number would shift. It was roughly 80, was how it started. And then it became,

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it's 82 for sure. And then it was, no, no, no, it's actually 83. And then it went down to 79, and then it came up to 84. And then it went up to 86. So it's remarkable how just that catalogue in question led to discovery, and that discovery, in turn, started to lead to, why do we even have this darn system? Who uses this thing? Why do you want to touch this thing? Why don't we just retire it?

So it's not part of UA, but suddenly you have an opportunity for portfolio management and services consolidation. So we've gone through that process, following that five month period for about three months. At the end of which, we have settled on this catalogue number of 84 that says, these are for sure, the 84 that will persist for at least the next two years.

So when we look at these 84 services of ours, 42 of them are off the shelf services, that we either buy and deploy, or lease and deploy, depending on whether it's something that we license in perpetuity, or we just rent. But 42 others are custom coded in-house. We took that custom-coded sliver, that's 50% of our catalogue, and then we said, what is it that we need to test and fix one way or another?

And in four cases, we found that whatever we had started was within the last eight months. And one of those four cases fit that case, where we started something in the last eight months, so

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we built UA into it and we're done with it. The other three, there was nothing to be done there. So we found that there is no reference to anything to do with UA at all.

So it's really 38 that we now have to deal with. And of the 38, we found that there are 28 that require user input. There is some user input focus there. So from a string input, string capture, string processing perspective. And in 10 of them, there are some action on a TLD somewhere in the service. There is no user input per se. So these are two very distinct cases that we've been able to identify so far.

So with the user input focus, everything is about ensuring that the application can accept and validate, and store, and process, and display, and search, on all gTLDs. But the others, where there is a direct reference to a TLD, it's much more about ensuring proper conversion when a low level protocol is being called up. So it's a different use case all together.

And as we build our test cases, we have to build two different kind of test harnesses and suites. One to test case one and one to test case two. That gets even more complex, as the platforms very. You know, this is the surface on the skin we can see this. When we dig deeper, the technology behind the skin is dramatically different from one service to the other.

The other variant that we are also seeing is the age of the technology itself. So although we might claim that something is built with X, Y, Z, it's a version specifically of X, Y, Z. If that version has gone through dramatic change over the years, then what we build is not really the same, although we can claim that it's the same platform. So we have to build multiple things, almost treating an older version as a different platform all together.

The other 42 are things that we have contracted with third parties to either procure or to lease their services. So we've gone through that catalogue in detail now. And we find that for eight of these services that we procure and use, there are no implications from an UA perspective. And we've gone through each of our contracts, all 42 of them.

Now that proved to be another challenge. Finding contracts for every service in your catalogue, as easy as it may seem, depending on when these contracts were entered into, just finding a copy of the contract. Where is it? Who has got it? What's in the terms and conditions? That was an interesting challenge.

But when once we had it catalogued, we found that not a single one of our contracts had anything that had wording pertaining to UA. Last time, when you had given me the opportunity to be

here, I'd share with you that a contract is a two edged sword. Because if you want a new clause in the contract, whoever gave you that service is probably rubbing their hands in glee saying, "Oh, here is an opportunity to up the financials and get you back to the table."

So we're being really careful on what we choose to do with these contracts, and when to invite ourselves to a table with the vendor on the other side. So we have 34 services that need contract adjustment at this time, that we're able to identify very clearly. So, eight of them have no connotation, the other 34 do. In total, we've got the 42 services that we buy and deploy or rent and deploy.

In a really… I want to go back to these slides that I had used the last time. We are finding that some of this is really artisanal. It's not a one size fit all at all. Each time we peel the onion, we find that there is a layer that says, "This needs a little bit of special treatment." So while on the surface, we're approaching this saying, "This is about universal acceptance," in fact, is it about looking very carefully at the details.

So the devil is, it's really buried in the details with this particular problem. Finding it and fixing it, some of the things that we're also discovering is with the oldest of our in-house custom coded services, the people who were there at that point in time, may or

may not have done a good job of documenting. So to find the stuff is one thing. In fixing it, there is danger because in the act of fixing it, you might break a service that's actually working, so that's, it's a hidden jeopardy that we're facing.

So our tests are having to be hardened further, before we can say, "Yup, move forward, and green flag it to be placed back in production," if we get to that stage. So it's interesting that, you know, many of these things to me are reminiscent of what we found with Y2K. And of course, this has the same challenges of, from an end user viewpoint, and listed as a strong use case of having to be UA compliant, the tolerance of the business to say, "Yeah, here. I'm funding you. I'm giving you a green hall pass. Go get UA done."

Well that varies. Some parts of the organization are like, "Yup, we can absorb that." Others are like, "You know, stop that train, man. Take it in a couple of years' time. In the meantime, I've got all of these pressing priorities. You've got to work on this before you can get to that."

So it's the old IT challenges that we've always had. You have limited resources, competing priorities, only so much time, and the process that says green or red flag things. So as we go forward, I'd encourage you to treat this as a priority. What we are finding is as we educate my colleagues about why this is

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important, particularly in ICANN, there is an increasing awareness to be supportive of UA compliance activities.

But that's not to say that it's high tolerance to UA compliance activities. It's just a greater understanding saying, got it. Take a sliver of your resources and deploy them on UA stuff. From a rough timeline viewpoint, I'd shared this timeline with you the last time. Not much has changed. We still continue to think of this as a 12 to 18 month effort. We're about three, four months into it now.

And as I look ahead, there are lots and lots of challenges. I have a feeling that when one, some of the rules of approaching UA compliance have been fully baked and defined, we'll make greater progress. I think all of the RFCs that have been written so far, that are providing useful references, are helping my team get ahead.

But as I said, we're creeping forward, we're not rushing forward headlong, not yet. There might come a time when we gain that much momentum. One of the things that's interesting in listening to what's happening in the world, I thought would be interesting to share here. Yesterday I had the opportunity to meet with a contingent of ICANN attendees from India, some of whom are here in the audience. And they were asking me specific questions about UA, and shared some factoids.

One of them is that Gmail is able to parse IDNs, and India is at the vanguard of it with 15 different language sets within a single country. And with a declared national program, called Digital India, where one of the pillars of Digital India is accessible and available email in the script of choice, with those 15 languages across the nation.

And one of the agencies that's been tasked to do that, is wrestling with this very problem as we speak. They've been going through multiple email packages and found that Gmail, for instance, is able to parse IDNs end to end, except for one problem. That you can't register yourself with an IDN. So it's a hollow victory in that you're able to get from end to end, the systems have been all made IDN compliant with UA, except when you get to the frontend, you're unable to get onto the system using one of these scripts.

So again, devil in the details. One of those problems. And a second one they were sharing with me is that with a different package, they're able to go from server to server, but they're unable to parse stuff from the client to the server on both ends. So, one of them was asking me whether a specific version of a software, or an open source software, would be made available, or would be recommended by the UA team here, so that they could proceed with whatever it is that they're trying to get done.

So it's these little details that are probably going to stand between us and posting a flag of victory on the finish line here. So with that, I don't have anything further to share. As I said, we're creeping forward. If you can help us to inch forward from where we are, I would welcome the opportunity. Thank you again.

CHRISTIAN DAWSON: Thank you very much Ashwin. I really appreciate it. It is very useful to start our day with this particular overview, because I think it shows us the struggles that we're up against when we see how difficult it is to get this accomplished right in our own backyard, but it also shows that the work that we're doing is extremely important, because we need to get this done for the world.

And so, starting here, being informed by what it is you've got going on, is going to help guide us, and I thank you. This community is tasked with a lot. We're going to talk about, a little bit more about what's happening around the world. Before we do, I was wondering if we could take a second to find out who in the community has joined us today.

If we can walk, if we can go around the room real quickly and do introductions, that will be fantastic.

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MIRIAM: Good morning. Yeah, okay. My name is Miriam [inaudible], I'm coming from Serbia. I am first time here. And I just wanted to join the session to see what's new, what is going on, and so on. Thank you.

UNKNOWN SPEAKER: Good morning. My name is [inaudible], I am from Pakistan. So this my fourth ICANN meeting. So this universal acceptance got my cat, so I just want to… Because I'm a technical guy, I'm from technical community. So I really want to be part of something like this. Thank you.

EMILY TAYLOR: Hi. I'm Emily Taylor. And I'm the, I'm involved in the World Report on Internationalized domain names. It's good to see so many friends in the room. So I'm, we've been tracking progress on universal acceptance for the last few years. So I can share with you some of the things that we've found out for this year's report, but also I'm here to listen for the team and find out what is going on here.

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ARMAN HUSSEIN: Hello. My name is Arman Hussein. I'm with the IDN program at ICANN. But beyond that, I'm also have been a member of the Arabic script community working on IDNs, and associated matters. And obviously I've been part of the, I've been listening in to your initiative. We will obviously become… We are an active, we will support new initiative from the IDN program team as well.

UNKNOWN SPEAKER: Hello. My name is [inaudible]. I'm also with the ICANN IDN program. I'm here to listen to the universal acceptance efforts here in this group, and also see what we can help regarding the IDN matters for the domains. Thank you.

DON HOLLANDER: And just to point out that these two guys have personal experience with the right to left as well as the left to right scripts. So that makes it even harder.

JEFF HOUSTON: Jeff Houston, APNIC, one of the regional Internet registries. My interest is basically in measurement and analysis.

JODI COCKER:	Jodi Cocker. Go Daddy. This is my first time at this group. I was just curious in hearing what's been going on.
RICH MERDINGER:	Rich Merdinger, also with Go Daddy. Vice-chair of the UASG. And a staunch supporter. And I'm here to make sure that this is an interactive session and working group session, as opposed to a set of presentations. And while I believe someone earlier on the sly said there was a lot of listening still going on, I think Ashwin, early on you mention that? Or maybe it was Christian. But the point is, I want to hear a lot of voices, and I'll be doing my best to elicit some of that, to make sure that we solve it together. Thank you.
BRENT LONDON:	I'm Brent London. I work on universal acceptance issues at Google, and I'm in charge of the technical and top light issues, work priority issues group, within the UASG.
MARK SPENCER:	Mark Spencer, Microsoft. I'm also working on UASG issues among others things at Microsoft, with a focus on the customer and partner experience aspects within the UASG, I've been collecting the best practices, and I'll be taking over the measuring and monitoring work stream.

UNKNOWN SPEAKER: Hi. I'm [inaudible] from [inaudible]. I'm doing EAI [inaudible] for Titus, Thai community.

UNKNOWN SPEAKER: Hi. [Inaudible]. I'm working on EA, especially here for this session. It's my first meeting.

UNKNOWN SPEAKER: Hi. My name is [inaudible]. I am from India, [inaudible] domain name. I am specifically here for acceptance of emulating in the Indian languages.

UNKNOWN SPEAKER: [Inaudible] from [inaudible] next gen of India here. And this is my first ICANN meeting. And here we are working on, I mean, IDN email [inaudible]. And we are facing some issues, and due to [inaudible] here.

PAUL MITCHELL: Paul Mitchell, also from Microsoft. I'm the policy guy.

CHRISTIAN DAWSON: My name is Christian Dawson. I am the chairman of the Internet Infrastructure Collision. I'm with the ISPCP. I am the, one of the

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vice-chairs of the UASG, and co-chair, along with Rich, of the work stream that focuses on outreach.

DENNIS TAN: Good morning everyone. Dennis Tan from VeriSign, and I'm focusing on universal acceptance. And also for the UASG, I'm one of the project coordinators focusing on internationalization. So mainly, IDNs, IRIs, all of the fun stuff.

EDMUN CHUNG: Edmun Chung from dot Asia. I've been a, I guess a pioneer of IDNs and EAI. And for the last 16 years, I've been trying to push this forward. And excited to see that this, you know, finally we're seeing the rubber hit the road. But there is still a lot of things that we need to, as Ashwin said. But glad to have everyone here.

It's also interesting, every time we try to get a big room at ICANN, it's somewhat deserted. Every time we get a small room, then we have plenty of people. But I guess that's a good sign, at least for this time. Thank you.

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MOHAMED SHERIFF: Hello. My name is Mohamed Sheriff, and I'm from London. I work for [inaudible] domain registrar. And this is my first ICANN meeting. I just wanted to see what's going on. Thank you.

TONY HARRIS: Yes. My name is Tony Harris with the Argentinian Internet Association, and the Latin American Internet Exchange Federation.

UNKNOWN SPEAKER: Hello everyone. I am [inaudible], from [Konac], based in China. And we are a registry operator for two Chinese gTLDs, and working for the gTLD. So UA is an area we are focusing on. And we are going to launch our gTLDs next year. So and focusing on this area. Thank you.

CHRIS DILLION: Hello. I am Chris Dillion from University College London. I'm up to about 15 ICANN meetings. And right from the beginning, I was very interested in universal acceptance, and it's great to watch it. As Edmon was saying, the rubber hitting the road, quite literally. I've been involved in various ICANN projects, usually in the area of languages, University College London, and the school of Oriental and African studies, together are the world's leading linguistic resource.

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And so we got involved in string similarity. And I've had various roles in the variant issues project. So I'm a member of the Chinese generation panel, and I'm co-chair of the Latin one.

UNKNOWN SPEAKER: Good morning. I'm [inaudible] from the [inaudible] registry. We are the registry operator for three new gTLDs. I'm in legal and policy, and I get that this seems like a very technical meeting. So I'm here to understand exactly what universal acceptance is all about.

LARS STEPHAN: I am Lars Stephan [inaudible] from Germany. I'm responsible there for the names and numbers forum, together with Thomas Rickert, you might know from the CCWG. And I'm part of the outreach team with Christian. Thank you.

GWEN CARLSON: Hi. I'm Gwen Carlson. I'm the Director of Communications for ICANN. I have no technical expertise whatsoever, but I am assisting on the outreach team.

UNKNOWN SPEAKER: Hi. I'm [inaudible] from Ukraine. I'm administrator of Ukraine IDN ccTLD dot [inaudible]. And the main task for us and for

implementation for our domain, is implementation of IDN email. And as I understand, legalization of person calling, and another, I think, bad things for modern connect.

DON HOLLANDER: So you have solved the EAI problem already?

UNKNOWN SPEAKER: Yeah.

CHRIS LAHATTE: Hi. My name is Chris LaHatte. I'm the ICANN ombudsman, and I'm really here because I support any initiative that celebrates diversity. And diversity is really what this is all about. So I don't have any technical background at all, but I encourage and support what you're doing.

UNKNOWN SPEAKER: Hi. I'm [inaudible] from Thailand. I just here as an observer. But an active observer, because I've been waiting for Thai EAI for 20 years.

DON HOLLANDER: Professor [inaudible] is just a little bit modest in her experience. But she has been a very strong supporter of this for a very long time.

CHRIS BARE: Hi. I'm Chris Bare. I'm an operations manager at ICANN. And I'm here from general interest, and also to help support remote participation for this session.

VALERIE: My name is Valerie, ICANN staff, with the registry services. So I'm supporting the registry community on these important high priority issues.

LUTE: Good morning. My name is Lute from DNS Belgium. We're the registry for dot BE, and we also manage two gTLDs, dot Brussels and dot [inaudible]. I was present at an universal acceptance meeting, I think about a year ago, or maybe a bit more. And then I got worried. So I came back.

DON HOLLANDER: We have one more who has just come a little bit late.

UNKNOWN SPEAKER: Hello. I'm [inaudible]. I'm from Russia, but I'm general manager of AP TLD. I haven't succeeded Don in this capacity, and my major job for today is just to make sure that I remember such [registry] and their given award, and they're right and timely manner. And that they have a chance to speak out, otherwise, you know, us Russians, are very hurt inside. Thank you.

DON HOLLANDER: So. So the next…

ANDREW SULLIVAN: Sorry. I guess I was late too. I'm Andrew Sullivan. And I am, I've been interested in this for some time. I'm mostly a geek. I've done some work on IDN, and I am one of the people responsible for the current label generation rule set approach.   So sorry about that. And I'm, I guess I'm here from the IETF and that sort of thing. And I'm currently on the IAB.

DON HOLLANDER: Thank you very much. And I'm not sure that we can get the audio working for everybody on remote participation, but if you could introduce yourselves in the notes that would be good. And I'll introduce myself. My name is Don Hollander, and I'm hoping that with the universal acceptance program…

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My background is as a CIO, and a CEO of a technical company. I also used to be the general manager, AP TLD. So I understand certainly the ccTLD community in Asia Pacific, where IDNs were a very important issue. And I also understand very large businesses having been CIO, and I understand what I call "nano" businesses, who are looking to get onto the Internet, and having challenges with some of these packages serving non-English speakers.

So Christian, if I just could, just so Ashwin doesn't get, taking off too lightly. One of the questions that came up in discussion, Ashwin, was the search function within your applications. How are you going to deal with that in terms of people putting in search terms in ASCII versus non-ASCII characters, when they're searching for an email address, or they're searching for a domain name, or whatever? How are you going to deal with that?

ASHWIN RANGAN: The honest answer is I don't know yet. There were two different approaches, evidently, that were surfaced, as my team went through that. And they've asked me the question based on that, should we go left? Or should we go right? And my answer was, "I need to wait for the UASG to come back to me and help me with an answer so we understand clearly which way to go."

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So that's kind of where we are with that question.

DON HOLLANDER: So from my perspective, that is the perfect answer. And one of the things that we're seeing as we talk to people, is there are many situations where there is no right answer. Where the RFCs have been involved for EAI, they're definitely right answers, and they're in the RFCs. But there are some areas that aren't covered by the RFCs, and so that's why I'm very keen for this group to help develop good practice guides, and identify these issues that CIOs and system administrators have to decide, and looking at the pros and cons of each one.

Maybe make a recommendation, but at least show those as options, so you can say, as a CIO, you can say, "This fits within our overall architecture." So perfect answer from my perspective.

ASHWIN RANGAN: Thank you.

DON HOLLANDER: Are there any other questions for Ashwin before we let him off the hook? Thank you Edmon.

EDMON CHUNG: Edmon Chung here. So I think it's a great, great to see that ICANN sharing the information, and I think that this is… Ashwin, you mentioned how some of the, I guess, older software, or legacy systems, not documented well. Hope this process will be documented well. And I think, you know, this is a group that can help with that as well.

You mentioned that there are decision points, you know, whether to go left or right. I wonder if you can, not right now, but if you can share that, the specifics of that, then, you know, the group can try to provide input to it as well as a collective. I think that would be useful. And we can document the whole process as we go through.

One of the interesting things I saw is that you had eight systems that have no implications on UA whatsoever. I'm just curious what they are. It seems interesting. Because you mentioned that there were eight that had no implications.

ASHWIN RANGAN: I don't know that I want to go through a listing of all of our services, but I think it's interesting to us too. It's about 10% of our systems, where there is nothing to do with UA, no matter how we look at it. And we're like, okay, that's pretty cool. But really, what does it do then? Right? I mean it's, these are backend services that are human resources or financials or

things of that nature. So we're able to just sit back and say, all right, let that go.

RICH MERDINGER: Hi. Rich Merdinger. And one question I had. As we talked about the documentation and outreach that we want to develop here, one of the things we've talked about creating is a FAQ, or a frequently asked questions. And Don started to Ashwin with a question about search in his systems. Getting feedback on what those questions are, so we know what is frequently asked, so we can answer the right questions is very, very helpful from a framework standpoint.

So we're getting that kind of input, and we need to provide the mechanism for that feedback loop, sorry, that was me. You get the point. Anyway, we'll have to figure that out.

ASHWIN RANGAN: You know, I've been wondering about that too. Our technical guys that, our enterprise architect on the one side, and the head of software engineering on the other. Those are the two guys who are dealing with this particular problem, within our shop. And when they get to a point where between the two of them, they're unable to make progress, they literally hit a brick wall. They don't know where to go after that.

So they typically come to me and say, "What do you want me to do?" And I'm like, "Dude, I have no idea. Right? I mean, you're asking someone who is pretty uneducated about this stuff to lead you on to the next step, and I don't know."

So, you know, so far, we're getting to the point where I say, "All right, the next time I talk to the USG, I'll let them know that we're at this point." I don't know whether there is a forum that could be used as a discussion point, where people like my two guys can talk to people like them, around the world perhaps, and say, "You know, I've got this problem."

How about we create something where people can really congregate and collaborate? I think that would be very useful. You know, the other issue that I'm having internally that may also be helpful in sort of framing this is, when I liken it to Y2K, people immediately understand the dimension of the problem, but the very next question is, "Yeah, but there is no time trigger, huh?"

So it's almost like I understand the importance, but there is no urgency about it. Whereas with Y2K, the ticking clock was the urgency setting, right? You were clear that on the 1st of January of the year 2000, you were either there or not there. Whereas with this one, it's like, yeah, we'll get there when we get there, what's your hurry?

So I don't know how we can create the hurry factor, but I think it's something for this group to think about.

CHRISTIAN DAWSON: This is Christian.   I couldn't agree more.   And this actually illuminates a fact that I want to bring up as people were introducing themselves and saying, "Well, I'm not technical, but I'm here."   We are a group that is sort of carved ourselves into different subgroups for a reason, because part of the issue that we have to deal with is a technical issue, and part of it is a business issue, or an incentives issue.

Part of it is figuring out how we can reach these communities and show them that this is important.   I think it's important to ICANN, because this community says, it's important.   I mean, there are lots of obvious reasons why it's important to you, but… So we don't need to cover, well why are you doing it?

But for everybody else in the world we do and the question of why isn't a technical question.   So everybody here who is here without technical bona fides, help us answer the why, and that's going to help us a lot.

TONY HARRIS: Just to get to, I'm sorry, I don't remember your name. Something you mentioned just now, when people say, "Well,

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what's the urgency in this? Why should we worry?" I think one easy answer is, the Internet is just one Internet, and you either function with everything the Internet demands of you, are you're not compliant with Internet services. I think it's as simple as that.

It's the same thing with IPv6, which we're struggling to try to implement. Latin America has like a 3% implementation of IPv6. We have Internet of things coming along, and LT networks, and well, that's a work in hand. It's modernization, it's updating the Internet. That's the answer. If you don't do it, well you're not compliant with what the Internet has, demands on the infrastructure.

CRISTIAN DAWSON: Okay. So a thought on the urgency. If you've been paying attention recently, there has been a lot of action on the fact that we have 3 billion people connected, and we have 4 billion people that are not connected. So US State Department has launched their global connect initiative a couple of weeks ago. The UN General Assembly approved its new collection of 17 sustainable development goals with 169 targets. It seems to me that solving this problem is a big part of solving the connectivity problem for the four plus billion people that aren't, because

they're mostly folks that aren't using ASCII character sets and speaking English.

And because governments, including all of the folks in the GAC downstairs, or across the hall, I guess, they are right now, you know, are very focused on this issue in trying to put time triggers like the US's, the global connect goal is a billion and a half more connected by 2020, which is in four years, which is a pretty aggressive goal.

Yeah, obviously we can technically connect them, but they can't use it which is all the data basically shows, that if you don't have the demand side drivers, you can't, which includes relevant content, etc. So you know all of this stuff. So the point I'm making is that governments are really focused increasingly on this problem, because they see it as one of the causes of the social disruption that we now have between different societies, which is, you know, haves and have nots.

Not trying to use technology as a digital divide issues, it's really more access of communications and being connected versus not. I think those are all levers that we individually can use, that also to get, to both push on places where there is funding, to enable some more rapid expansion of this. For example, things like the global connect initiative. And when funders are like USA ID, or others or [OPEC], are launching projects to connect

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people, we can create pressure, time triggers to the Y2K point, by making this a requirement rather than sort of an afterthought.

And it's all of those folks who maybe aren't technical, but spend time on the policy circles, this is the kind of thing you can use as leverage to really drive some action.

CHRISTIAN DAWSON: So that's a good segue into the section, the segment that I want to do next, but first I'd like to hear from Emily, before we transition. We're going to stay on topic, but…

EMILY TAYLOR: Well, I just wanted to share a few thoughts on the why question, and one of things I've been doing in the last couple of years, which is why I haven't been out very much, is that I've been looking at the content, the language of content associated with IDNs. And contrasting it with the language of content associated with ASCII domains.

So if we sort of reel back, and it sort of follows on from the last speaker, about 10% of the world's population speaking English as their primary language. But then when you follow through into the primary language of web content, it's about 55% English, so there is a clear sort of, you know, the representation

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of the English language online is very much over representative compared to the primary, the percentage of primary speakers.

I can see, I'm already losing people, but when you then go through and look at primary language of IDNs, you see a much richer display of languages. And in particular, one thing I'm trying to do this year is bring in ccTLDs into the mix, but if you just look at the gTLDs, you see a huge bump in the percentage of say, Japanese language, that's associated. But just generally, you see an awful lot more. And then when you go and look at the language of web content, you see a very high correlation between the language of content and the script of IDN.

So if you look at, say, Ukrainian language, Russian language, you will see that they are usually signaled by Cyrillic script IDNs. If you're looking at Japanese or Chinese, you will see Han, [inaudible], that's where they are. When you're looking at Farsi, Arabic, Arabic domains, and there really isn't very much variation. So in summary the answer, why? If you want more people online, IDNs are the way to do it.

CHRISTIAN DAWSON: That's wonderful. What I would like to do is very, just procedurally change it so that I'm commanding the conversation to Don commanded the conversation. Don is going to take us on a tour of the world and show us, and highlight

some things that are happening around the world, to help drive forward UA, and maybe in the process, we'll talk to some people who can help us answer the why.

DON HOLLANDER: Thanks very much Christian. So first of all, Ashwin, thank you very much from my perspective, another excellent presentation. And we look forward to Marrakesh, where maybe you'll be able to actually show some of the results of your work. So thank you very much. I think it's very important that we get real world experience as to this UA issue, how hard is it, how big is it? What are the imperatives for it? And Ashwin has particular incentive to get this sorted, but he is not un-representative of CIOs for small to medium sized organizations who need to get this stuff addressed.

So it's good to see how this process worked. I know, when he started on this he said, "Oh yup, that will be easy." And then his staff said, "No." And we're finding that it's not easy, but it is achievable. So thank you very much.

So the next session, section is open dialogue. I have a microphone, I'm happy to bring it around. We had a couple of people primed to talk about what's happening. So my vision is, once we get some of these core documents finished, or bedded down anyway. So we're on the third version of the introduction

to universal acceptance, we've got test suite, documentation. We've got some EIA stuff happening.

Once we get these, this preliminary work vetted, the next question is how do we, how do we start evangelizing UA to the software community? And one way that I think that might work is to, we can address some things at a global level first, for some gigantic corporations, but you have to do it, break it down regionally, nationally, locally.

And I want to see this idea, particularly from people from ccs, people living outside of North America certainly, to say, "Right. We get this. We understand what UA is. How do we drive it within our community? How do we drive it within the Arabic community?"

So, the languages cover a huge area. How do we get it into that language community? And then into each individual countries and so forth. One of the beauties is some of this work, some of the piloting of this work, has already been started, and what I would like is to ask [inaudible] if she could talk to us about the approach that Thailand has taken. I won't tell everybody what you're going to tell us, so. I'm just very excited.

UNKNOWN SPEAKER: Thank you Don. Actually we start with a workshop in May, where a gathering of stakeholder from Thailand, and we also invite speaker from internationally, like Edmon, ICANN, to give like introduce the EAI issue for Thai, for Thai community. In the workshop, we like, invite, like Thai webmaster association ISP, and also the open source development association.

And they come together and discuss about the issue. We found out that they know that it is the UA issue there, but they have a question like big party like to support Thai EAI. We ask one of the email provider, they develop a system that Thai can use, like Thai EAI, but whenever they want to send out to reach somebody else, which cannot read that email address.

So they are waiting for like Google, or Microsoft, to provide that, I mean, to be able to send and receive and also create a local user name. And like many of you said, this is not the first priority for some of them, and we also have a problem with the whole system, or like the system that they are using like for Thailand government. They still using the old like Microsoft or Outlook, and if we are going to tell them to upgrade to the one that support IDN or Thai EAI, there will be like financial problem with that. So we need to find a solution for them.

And from the government support perspective, we have Thai GAC representative which will be very active, [inaudible] is the

co-chair of the GAC. So he is trying to push like policy to support the uses of Thai IDN and Thai EAI. I think that is, that will help a lot, because you, the government using Thai EAI, then the server in Thailand, local server, that will try to catch up with that. Yeah, thank you.

DON HOLLANDER: Thanks [inaudible]. When you have this conference, this workshop, who was there and who wasn't there?

UNKNOWN SPEAKER: We tried to like invite some bank association representative. They are not coming. The one that came is like Thai webmaster association. And the open source development association, Thailand. And we have like e-commerce association. We do have government, but we don't have like bank or the official representative from ISP association. But the SP itself were there. Also Microsoft. Yeah.

DON HOLLANDER: So the thing that got me most optimistic about the report that I saw out of the Thai conference, was that Microsoft did a demonstration of a beta version of Outlook. And well I don't know whether Mark can talk about what's happening…

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UNKNOWN SPEAKER: It was released a few weeks ago.

DON HOLLANDER: So once you see a beta of something, then that's a really positive sign. Anyway, the reason there is noise in the background is that we're just trying to dial [inaudible] into the conversation as well.

So I would just like to talk a little bit about New Zealand, and the approach that I'm seeing there. So I live in New Zealand, I live in Wellington, which is the capital, apparently the coolest little capital in the world, according to Lonely Planet.

So we've looked at, we've raised the issue in New Zealand. New Zealand has three official languages: English, New Zealand sign language, and Malta. And Malta uses Latin script with some macrons. So it is automatically, it now becomes an IDN. So that's, it is an issue in New Zealand. And when we talk to government departments, when we talk to the largest software business in New Zealand, when we talk to the largest e-commerce sites, when we talk to the banks, and we say, "Can you support this?"

The answer is, what? So we're working… In New Zealand, there is about 20, 24 different groups that we're talking with informally yet, because we don't have that hurdle of email to get

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over. Because as soon as you talk to a CIO, as soon as I talk to a CIO or system's architect, they say, "Yup, we got the problem." And they start working through it in their mind, sort of like what Ashwin said.

And they said, "Aw, right, email. We don't do our own email platform. We use Microsoft Exchange or we use something else. Is that compliant?" And the answer is no. Unless that's changed. Microsoft Exchange is compliant?

UNKNOWN SPEAKER: Not yet.

DON HOLLANDER: And fair enough. Because there is a lot of work involved. And CIOs are naturally conservative, and even if Exchange was released today, you know that no CIO in their right mind is going to introduce it into production for at least a year. That's just life.

UNKNOWN SPEAKER: Yeah, we'll be enabling the service, the Office 365 service first, and then I think that will give people a, because it's based on the Exchange platform. And so I think that will give people a good indication of how stable it is.

DON HOLLANDER:	So I'm going through and talking to some of the large businesses in New Zealand, saying, "Are you ready?" Or, "Did you know that this is an issue?" And they say, "Oh no, I didn't know that was an issue. And thank you. And do you want to have coffee?" Or something. There is a group in New Zealand called the New Zealand, the Malta Internet Society, which focuses on IT issues for the Malta community.

They actually did an experiment where they tried to register with every government department, with a Malta domain, Malta email address. And any guesses as to how many it actually worked for? That's right. That's the number of hands that are raised, that's how many. So the Minister of Malta Affairs, didn't work. The universities, didn't work. Banks, didn't work. So they've catalogued the issue. People are now starting to address it.

But the approach that I'm taking in New Zealand is to raise it softly, raise it informally, through different user's group, so Internet NZ, through the Computer Society, through a group called Two Ns, which is another geeky professional body. And just raise it, just start seeding it gently, gently, and that's the approach that we're talking in New Zealand, because until we have an email solution, nobody is going to be in any big hurry to sort out the problems.

That's my perception, at least in New Zealand.

RICH MERDINGER: Rich Merdinger.   Don, question for you regarding your experience in New Zealand. What do you wish that you had in your back pocket when you made that initial contact to even introduce the concept of the UA issue? To either CIOs or other providers? That we can then think in terms of action items out of this group, provide in general.

DON HOLLANDER: Yeah, so thanks Rich. So the thing that I would like, and the thing that they would like, because they've asked for it, is a CIO's guide, a blueprint on the types of issues that they should be looking at, and any surprises that other people who have gone before them have encountered. So the issue that Ashwin raised, is how do you store the system? And how do you search it?

So if you've got a contact management system, so you're a bank, you've got a contact management system, and you can search by people's names, you can search by their email addresses, you can search by their telephone numbers, by their postal address. So if you're going to search by their email address, do you search by Unicode?

Do you search by the Punycode?   And if you're searching by Punycode, who actually knows Punycode?   So those are the sorts of questions… So there is the RFCs, they get that, but it's the, tell me what I'm going to have to know before I have to know it, for the people who have gone before.

And it's finding those people who have gone before that's a bit of a challenge. So that's the sort of documentation that I would have liked to have in my back pocket so that they can show people so that they could say, "Yup, I get this. I'll give it to my systems guys, they scope it and will put it into our normal maintenance program over the next three or four years."

RICH MERDINGER: So thank you for that. Something that I think Ashwin mentioned earlier. I'm going to suggest that also having the URL of a forum where others that are currently undergoing the types of issues and the discourse can uncover new problems, fresh solutions, and the concurrent development, because we have a chicken and the egg scenario here, where we're trying to identify all of the, quote/unquote, all of the issues, so that we can provide the documentation on how to address those issues, yet at the same time, we're still uncovering the issues, so we don't want to put out incomplete or incorrect documentation, and finding a way that is more of a healthy ecosystem of problem resolution,

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definition resolution, seems like a good perpetual step possibly, but at least interim.

UNKNOWN SPEAKER: All right, thanks. So the one thing I will say is, when people say, "Well do you want to…? Should you search the A label form, the XM minus, minus stuff." Let me tell you now, the answer is no. We've said over and over again, don't do that. And for some reason that technical advice doesn't ever make it out, but since you're all here, I can tell you now, don't do that.

And the reason not to do that is because that's a transformation system, right? And it's there for the wire. So for the same reason that when you're searching things in the DNS, what you do is you use the presentation format, right? You use the things with the dots. Remember, the DNS doesn't have the dots in it on the wire.

But the dots appear in all of the stuff that you use. That's the same reason you shouldn't use the A label format of anything when you're doing work on it. You should use that for the wire, because that's what the machines are good at. But when you're talking to users, use user presentation format. And that should be true every time. So just pick the presentation format and then do it.

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What it does mean, however, is that you need to understand normalization. This is probably not the group that needs to understand normalization. So, you think that this group needs to talk about normalization? Or it needs to say, "Do this and follow what you Unicode tells you to do?"

UNKNOWN SPEAKER: I think it's particularly relevant in the context of email address internationalization as opposed to just domain names, because normalizing the local part of an email address is figuring out how to do that is going to be crucial to interoperability. I think it's less critical to talk about it for domain names, because the standards are pretty well defined for how to do it.

UNKNOWN SPEAKER: Right. So actually, they are and they aren't. There is the technical fact on, of the name, of the way you express this, is that you're always doing normalization. And we have, in the ITF, we have an additional set of work called [Pre C?], which is about how you internationalize stuff that isn't domain names. And to do that, so that we've got the same sort of consistent interface.

At the same time we've got the problem that IDNs are actually stuck on a version of Unicode that is now two versions ago, because we don't know how to solve problems where

normalization doesn't work for our cases. So there are serious technical problems underlying all of this, that I think probably do need to be worked up, but that's not a policy problem, right?

That interoperability problem, so it's a technical specification that needs to be sorted. But then there is on top of that, an additional set of policy things, where you need good advice, for instance, on how you would implement things and so on. And I think the right answer there is always, you need to concentrate on the user friendly presentation format as the thing that you're going to work with.

And the reason you need to be able to do that is because that's the input that you're actually going to get. So always work with the input that you're going to get, because you're quite right, for instance, nobody is going to be able to type XN, minus, minus anything. I know these specifications inside out, and I can't do it in my hand, so I don't expect, you know, mere humans, to be able to do that either.

I think that's, that's just a consistent piece of advice that could be given. You could give it now, and it would be good.

UNKNOWN SPEAKER: One, I wanted to take one moment to comment, if possible. We are, we are not a technical group, and we are not a policy group.

We're an outreach group. Of course, we need to work with policy groups, and we need to work with technical groups in order to accomplish our goals, but by definition, our goal is outreach as a primary function, I think.

DON HOLLANDER: We've got [inaudible] on the phone, and he's been involved in outreach into Eastern Europe. [Inaudible] can you hear us? And can we hear you?

UNKNOWN SPEAKER: Can you hear me?

DON HOLLANDER: We can hear you. I love technology when it works.

UNKNOWN SPEAKER: Okay. Even I can hear me. Okay. Good morning from Belgrade. I'm delighted to hear that we share so much participants in this workshop. And among participants, we can, as this European or Cyrillic thing that we share in Europe in my part of the world. Because in Europe, you know to have one of the most active ccTLD. It's [inaudible]. And even [inaudible] making some good reports on implementation and development of IDNs with Unicode.

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Among others, of course, the basic groups which implement IDNs, is Cyrillic script group of countries. Among them it's Arabia, also the biggest one, Russia, Ukraine, and others.

So basically, we share situation in Europe that I will describe like we are in marketing stage for IDNs. On second level, I think that most of the ccs [inaudible] IDNs. When we speak about vulnerabilities, we share a group of Cyrillic ones, that try [inaudible] dot [inaudible], dot Moscow, dot [inaudible]. And others. And we are all in marketing stage for all of those IDN top level domains.

From the other chance, which have only domain names with Latin script, with IDNs, in German language with one letter with [inaudible]. So this is how things are in Europe, but basically we share problem [inaudible], for example, we share a Bulgarian ccTLD which shared a problem with dot BG, during the procedure in ICANN.

And also, we get [inaudible] this is [inaudible] ccTLD, and they were delegated after six years of procedure in ICANN. And it's [inaudible]. If I correctly remember. Also this year, we [inaudible] dot [inaudible], Armenian special ccTLD, IDN ccTLD, which opened some, from first of September. So when we speak about the INDs, IDN ccTLDs, we could [inaudible] up to our situation [inaudible].

Although we share [dot RS?] Russian Federation, which is among the first ones in there, and maybe the biggest one of all IDNs. So this is the situation about IDNs, everybody is waiting for bigger players on the market, for, or softer terms, to solve IDN email problem. And to implement those solutions into their systems.

When we speak about new gTLDs without IDNs, of course, we share a big number of new gTLDs. We have, for example, dot [inaudible], or similarly Budapest, with long names. And also they are in this record, marketing phase. So basically we are in Europe, we are at the beginning of those problems, and we are trying to solve them, and most advanced is, as I said, [inaudible].

I hope that [inaudible]… some spices to my speech. And that's all from me.

DON HOLLANDER: Thanks very much. Yuri, do you want to…? So just to let people know in terms of how we're going in time, we're running about seven or eight minutes late, I reckon. I'd like to go with Yuri, [inaudible], and Tony to talk about their respective regions, and then we'll sort of sum or take questions, if that's okay. Yuri?

YURI: Thank you. I think that the most difficult in implementation of IDN domains in general. Is it absent of IDN services. Absent IDN

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email. Absent normal visualization of IDN web names, IDN domains in string of, in browsers. So, I show experience of our market. I mean, market Ukraine. We have about 6,000 domain names, registration in dot UA, 6,000. 600,000, and only 11,000 in dot [inaudible]. Why?

We don't have services. We don't have for email, it's a simple service, but we don't have, not only services, we don't have technologies, because Punycode does not work in local part. Unicode will work in domain part, but not work in local part. Okay, we have two approaches.

The first approach is Affilias, sorry, aliases of ASCII email. The second is a more strong, and more difficult, is an approach for building a new Internet, on the base, on the Unicode, of a new version of Unicode. And I think this is not Unicode 8, not Unicode 16. It's Unicode 32. To my mind. To my mind today, I don't know what everybody will think through three months, because this knowledge is very [speedy] for implementation.

So, what way we should take in our consideration? I don't know now. But we must not, we not should, we must start our discussion, and this is a discussion should be short. Because market, I now say it about Cyrillic market. Cyrillic market is capacity, Cyrillic market is about 800,000 users, Cyrillic market. And this is market, wait from us actions, activity. Thank you.

DON HOLLANDER: [Inaudible]? We'll go to a different, but nearby part of the world.

UNKNOWN SPEAKER: Thank you Don. So, I wanted to share my observations for everybody at three different levels. The a national level, coming from Pakistan, at script region level as an Arabic user, and then also then very briefly perhaps from the perspective of ICANN, specifically from the IDN program.

So the first comment in the context of Pakistan, basically Don was saying he has been working in New Zealand and reaching out to his community, and I was actually thinking how it was possible to scale that up, to reach out to all of the communities, and all of the countries. And they must be a mechanism because obviously, that is a good way of interacting and getting the message out.

And a solution which I think is possible, particularly from the Pakistani context is to actually somehow partnership with ISOC chapters. And get ISOC involved in outreach efforts, because the ISOC chapter in Pakistan, for example, would be a good platform to share the problem. They have technical people there, who can understand what the issues are. They can obviously

propagate that information in their organizations and also beyond.

So as far as bottom up approach is concerned, I think there is probably good reason to talk to organizations like ISOC. As far as, so that's, but that's a bottom up approach. There is also a top down approach kind of approach which sometimes also works in some countries. At one point, before my association with ICANN formally, I was leading the effort for putting together the application for dot Pakistan IDN ccTLD, and we were working in the ministry, and interestingly at one point, since I was at the university, we had asked the university to fund some of the workshops related to the IDN ccTLD application.

And the way they came up with funding was that they said they're going to do a workshop on local language content, not on dot Pakistan IDN and ccTLD, because they had no funding for localized domain names or internationalized domain names, that was just too small a thing, I guess, to be on the radar.

And so somehow, if this initiative, a universal acceptance can be connected to local language content accessibility, and that's language which I haven't really seen so far, that's really going to hit it off with the comments, at least I'm talking about my perspective here. So that's really probably a better pitching, a

better way of pitching it to the government rather than just saying, acceptance of domain names.

So that's, I guess, a national perspective. Let's talk about a script level perspective, which is broader, of course. So I think again, I see two kinds of issues with universal acceptance. There is obviously the deeper technical issues, which we've all been talking about. But there is an equally important usability issue, which is from the user's perspective, not from, I guess, the technical perspective, but obviously has technical solutions to it.

And it's equally important to understand and identify all of the usability issues, which pertain to a script community. This is perhaps particularly more relevant to the Arabic script community because of its right to left, not only right to left but other issues because it's a bidirectional script. So it not only has right to left, but left to right mixed together with it.

And that creates a lot of possibilities of how you can actually, how a domain name and email address, for example, would appear and so on. And then there are other general usability issues, which are equally pertinent, even though they may not actually be directly relevant to universal acceptance.

A very small example is that the keyboard standard for Pakistan, doesn't have a dot and an accent, so we have to actually switch the keyboard to write the domain name and an email address.

And keep switching it back and forth, to the extent that we now actually have decided eventually at the ministry that we needed to update our keyboard standard at a national level, and into the dot [inaudible], and all of the language keyboards.

And I guess a question would be that there is, if you know, just looking at different platforms like Microsoft and different operating systems, many of these platforms provide onscreen keyboards or keyboards through local language interface. At least that's what it was called in Microsoft at one point.

Do they have dot and X in their lips? So that's a question to ask. And if they don't, maybe that's an accessibility issue as well, which needs to be confronted from a usability point of view. And so, in any case, I think it's important to organize a look at it from these two different perspectives. The usability perspective, beyond this there are deeper technical issues.

And the best way of looking at the usability issues is to engage the local script community, to actually look at it and define a set of issues. And that's what we are doing as part of the Arabic script community, we organized ourselves. We call ourselves a taskforce for Arabic IDNs. It's a fairly large group comprising about 33 experts, linguists, if that makes sense, so on. From 20, more than 20 countries across, which use Arabic script.

So it's a fairly comprehensive group with a lot of expertise. And they've initially started a couple of years ago, and they started looking at many issues. So when they formed themselves, they wanted to look at holistic approach, so they were, there is a longer list of things they wanted to look at.

At this time, they're just finished the proposal for Arabic root zone LGR. They're moving on to second level LGR, and also universal acceptance for [inaudible] with IDNs to identify the issues, and they're also obviously going to be working on internationalized registration data and other associated topics.

Just to move on and… So in any case, I think it's very important to engage with the script communities, and not just the user communities, to identify what the issues are which need to be solved. And some of these usability issues are equally important as the deeper, technical issues. And then finally, from I guess an ICANN perspective, very interestingly, we have many of these script communities organized already, working towards what is called the root zone LGR work.

Many of these script communities have naturally shown interest in doing work on UA as well. And I think this is a very good opportunity for all of us both from the script community's perspective, also from USG and IDN perspective, that we can somehow manage, we can somehow try to make a mechanism

to connect the USG work, or UAI work, and these script communities and they can, you know, continue the work that they've been doing on root zone LGR and start looking at these aspects as well. So, thank you.

DON HOLLANDER: Tony, you want to take us to a completely different continent? And what's happen or not in Latin America?

TONY HARRIS: Certainly Don. Thank you for the opportunity. Tony Harris once again. First of all, I'd like to say that I'm not a technician. I'm awed at the people in the room, quite frankly. I'm your fan. I think you're doing a great lot of thinking and great work on this. Perhaps my contribution would be more in the area of getting this out, the message out, and particularly two things that I'm involved with, which is my living literally.

My day job is assembling Internet Exchanges, in Argentina specifically we have a network of Internet Exchanges. And I set one up every two or three months, a new one. And that brings us into contact with all of the ISP world. In Argentina where I live and work, and also regionally through the federation we have of the Internet Exchanges and other linkages and alliances.

Basically, Latin America is perhaps not a huge example of where we have problems with the universal acceptance because IDNs is not a big issue there, obviously. We just have the regular ASCII script domains are used 99.99% of the time. The region per se is not a huge consumer of generic domain names. They're more, I would say they go more for the country code TLDs.

Perhaps through the fact that they don't know about generic domains, or they don't see them as something which would add value to them. We only have 17 registrars in all of Latin America. For example, of the 19, 1,930 applications for the new gTLD program, only 27 came from the Latin American region. And for just one company, for [Spanish], which is an airline and hotel booking online service.

So basically what we have been doing as an industry, and speaking as the ISP industry, is create awareness of the fact, first of all, that there are new domain names, because if a complaint ends up on a help desk in an ISP with let's say a dot club, or a dot, I don't know, one of the new domains.

They wouldn't know what the customer is complaining about. They say it just doesn't exist. It's not dot com, it's not dot net, it's not dot org. So you know, they may have heard about dot info, but not something about all of these new domains. So

gradually, we're getting the message out that all these new domains are coming in.

We've tried to keep them updated on the new ones that are launched. And another thing we are doing is getting ready for when we have something, let's say structured to communicate, which we would obviously require the help of technicians. We have talked to the GSME, which is the largest mobile association in the world.

I think it's main one. They are extremely interested in this. And willing to… They have regular seminars on technical issues related to mobile services and the Internet. And this is something they really want to hear about, and they're really concerned about, because obviously there were a lot of OT networks that's going to expand the use of the Internet on mobile phones to, I think, a considerable degree.

So that window of opportunity is open there. The other thing that we're very cautious about is the political aspect. We don't want to get a message out to the market that new gTLDs are not reliable, which is a risk that you have when you go public with this issue. How are you going to communicate it?

We think we should be talking about the Internet needs to be updated, generically. And we bundle that normally into a talk with IPv6, which needs to be, obviously the updating of the

numbering side of the issue. And while I'm a registry, I have a dot LAT already launched, so personally, I'm also concerned about getting a message out that new domains are not reliable.

We should avoid that at all costs. And I don't have really much more to say, but I think that having been one of the people who cried out for this to happen, I see a lot of progress being made and I'm very happy with that. And any questions about our region, I'll be happy to answer them. Thank you.

DON HOLLANDER: Thanks very much Tony. I'm just well aware of time. Can I just sum up what I think I've heard? And if I'm wrong, people can correct me. So one of the tasks for today, is Rich Merdinger has been volunteered to take notes and come up with a summary of actions of what, who, and when. And we'll come to those at the end of today.

So what I've heard is, it's a big problem. There is one really big issue, which is email that doesn't work. Is sort of a short answer. But a longer answer is, it is starting to work, and it is starting to come. And TH NIC, for example, took a core mail instance and have deployed that, and that is working, slowly, slowly, but it's working.

And Mark has already told us that Office, I don't understand that Microsoft branding, but their online email system is going to be email compliant, and that is based on Exchange. So some time in the next, I'll guess, year or two years, Exchange that is used in a corporate environment, will be EIA compliant. And we'll hear it later about post fix also being EIA compliant.

So email, big issue. Needs to be sorted, and from what I think I heard from Tony is, let's get that sorted before we go out and address the other thing in a big bang way. So email is a big issue. And Yuri also said, how it's represented in the browser. There is a question about local part transformation, how do you, if you're not using the Punycode transformation for the local part, what are you using?

Is it just Unicode? And that's beyond my technology comfort zone, but clearly an issue that we need to have set out in our good practice guide anyway. And which version of Unicode do we use? Which makes…

UNKNOWN SPEAKER: Excuse me Don. One difference in what I heard Yuri said and what you just read back, was that he was also bringing up the concept of aliases, which is not the same thing as the transformation of something. It's actually a secondary implementation, which myriad issues arise when you talk about

having multiple instances of something as opposed to transformations.

DON HOLLANDER: Yup. So that's sort of an interim step that I know the folks at Cornell have implemented, and the other folks that Affilias have a product.

UNKNOWN SPEAKER: Sorry Don. Cornell implementation by through alias.

DON HOLLANDER: Aliases?

UNKNOWN SPEAKER: Yes. As Afilias as Google doc. But I think, I have a dream. I have a dream, a dream that we will use real IDN email. Not with alias.

DON HOLLANDER: Yes. I, yes. We also heard that there is a desire for a CIO's guide, so that a CIO can figure out what to do. In terms of how we go for community outreach, it's engaging in different parts of the community. We see the TH NIC, the time model where TH NIC acted as a catalyst and brought together representatives from government, from ISPs, not necessarily the ISP association, but

individual ISPs, software organizations, and said, let's work on this together as a program.

And TH NIC actually put in an instance of core mail that people can use to at least test, yeah?

UNKNOWN SPEAKER: We also have the software with Thai, Thai company develop. The Thai email software too.

DON HOLLANDER: Okay.   So that's happening there.   [Inaudible] said, look for partnerships.   ISOC is a very good partner to use.   Perhaps globally and certainly locally.   Because they have people who get it, who understand the technologies, and are around the world. And also the script communities are another group that's keen to work to make this happen.

ISPs as a channel to communications to market. So in terms of the actions, the who, what, and when, email is certainly ongoing. I'm happy to put Brent's name against that. Anybody opposed to that, besides Brent?

Yeah, thanks. And so, but that is work in progress, and there is activity happening, and we expect there will be a gathering of EAI folks sometime next year, and there is already an EAI mailing

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list within the UASG, and we saw in Jakarta, the AP TLD community set up an ad hoc working group to pursue EAI.

So we're looking to work with them as well. So email, I think, is underway. In terms of a CIO's guide, I think that's underway-ish. We'll learn from what Ashwin has learned, and we'll put together some good practice guides, and then we'll work on how do we reach out, and in terms of who does that, I'm going to put that on the UA community outreach team, to come up with a communication outreach program by the middle of January.

I think that's achievable.

RICH MERDINGER: Yes Don. Rich. From my notes, I didn't have a good when for Brent and the EAI next steps.

DON HOLLANDER: So the next step is the first or second quarter of 2016, there will be a physical face to face gathering, and between now and then, Brent is growing his community of EAI friends. There is an emailing list where people can talk about issues that they've come across. How did somebody solve it or just any other issues. And that mailing list currently exists, not particularly active and not particularly well populated, but it does exist.

Is that a fair summary? Tony.

TONY HARRIS: Just a quick comment on how you summarized my presentation. I agree, we need to get work done before we go out and communicating a lot, but something came up in Buenos Aries, which I thought was interesting. I talked about this to the Fellowship meeting, and there was some young engineers or programmers in the audience, and two or three of them immediately jumped on this and said, "Well, we didn't know about these new domains."

And they mentioned, I'm not a technician, they mentioned there is a library of domain names that programmers use, and why isn't that updated? I mean, I don't know what they were talking about, but this came up from two or three sources, and this brings me to a suggestion which is, we can work on everything you're doing, which is great, but what is stopping us from going, for example, to all of these clubs of apps developers that are sponsored by the cell phone manufacturers and the telecos.

They have these, you know, they've got 500 young programmers in a room, and give them tools because obviously there are, they're developing apps which will generate traffic for them. And what is stopping us from telling them that they should

consider the fact that they are new domains, if they go into any addressing parameter programming [CROSSTALK]…

DON HOLLANDER: That's on our agenda for later today. So this session that we're now a little bit running late for, much later than I thought, is all about, how do we reach out through communities? Through geographic communities? What is it that…? What's happening in different regions, or not happening in different regions? So that's what we're trying to get sorted here, and we'll talk about the software libraries, and utilities, and tables later today, if that's all right.

Rich, have you got all of that?

RICH MERDINGER: So, just to summarize, I do have more comprehensive notes, but I really only had two actions from you out of what you just discussed, and that were the email implementations, the CIO guide. I also had my own was the creation of a form, an interactive form community to use, and that would be a community outreach is the who, and the Q1 to Q2 implementation.

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DON HOLLANDER: So let me just ask a question. Are there people who would be interested in working on a model on local outreach? Or are we not quite ready for that yet? Tony?

TONY HARRIS: I'd be interested in working on a model for local outreach.

DON HOLLANDER: Can I volunteer [inaudible] as well? Since I think she's the most advanced in that space? So if we get three or four people, we can look to develop a model, and then put it out to the community, so just seat it. And I'm happy with three that works. Because smaller is better. Very good.

RICH MERDINGER: So Don, do we have [inaudible], you just mentioned. Is that… I'm putting down who so that later today…

DON HOLLANDER: …Tony and Don.

RICH MERDINGER: And Don. Okay. Thank you very much.

DON HOLLANDER: Okay. And we'll have something available by the end of November. We'll have a first draft.

CHRISTIAN DAWSON: So are we ready to move on to our next section?

DON HOLLANDER: Yes, if we could. If that's all right. And we'll break for tea.

CHRISTIAN DAWSON: Well let's, so we're going to have Avri lead us into our tea break. When we were in Horsham, Avri joined us and encouraged us to think more about sustainability, development goals for emerging regions for UA, and so hoping you can come, and lead us in short conversation, and give us some food for thought heading into our break.

AVRI DORIA: Thanks for inviting me in, sort of an interloper in all of this. I was just sort of listening in on your phone call, and then opened my mouth, as is my want, and ended up here. So basically, I've been looking at working with various NGOs on distribution of equipment, capacity building, education, enabling, for figuring out how to use ICTs in development.

Now one of the things they always need is something in their language, in their scripts, etc. And so as you start to build up on that, you get to the point of how do they do that, and that's where it starts to sort of melt into the work that you guys are doing, but it's more from a pull level of getting, you know, people getting the skills and then starting to look for it in there.

Now one of the places where this starts to come in is the SDGs, the sustainable development goals, that are the new program that the UN and various nations are committing themselves to for eradication of poverty by 2030. Among these things, and there is, you know, 17 goals, I'm not going to go through them, but as you're look at each one of these goals, you start to see that they are enabled by ICTs.

They're enabled by Internet technologies, Internet communications, Internet information that can be obtained, but it needs to be obtained locally, not locally but in local languages, in local scripts. And that then brings all of the UA problems.

So part of the notion I had as I was listening to you is, one of the things is getting these governments involved. These governments have committed themselves to doing this. These governments have committed themselves to e-governance, they've committed themselves to communicating with their populations more completely. You know, especially

infrastructure for industrialization, and means for implementing solutions, is one of the commitments.

So in terms of the notions of outreach, I started to wonder, what possibility there was for using the SDGs, as a vector into government, whether that's not necessarily procurement, but government goals, government plans, and mixing with that, as yet another form of outreach other than just to the industrial companies.

You know, because they need access and access requires all of this. At the other end of that, and that's the next slide, sort of looking at it from the end user, and this I think builds on some of the stuff that people had already said. If I could just pop to that one, but it doesn't really matter, is working with you, already have in ICANN and in the Internet Society, an incredible outreach into people who can actually do much of this work, locally in open source systems, building the mail agents, working on, you know, the web clients and such.

So I guess, when I was listening to you all, and as I say, an interloper that was just listening, and you know, opening my mouth, I started to wonder about those two approaches, both the SCGs through governments, and then at the same time, and in parallel, to those developmental developers, you know, or the developers from developing economies, who do really quite

amazing things when you look at what's being done in Africa and elsewhere on open source, and how that can be built into the outreach strategy that you're doing.

And that was really, and yeah. The one last advantages is when you have the local developers building it, and building it on open source, it sort of enables more and more people in those communities. So from a NGO perspective, this is something that I've been working on in just getting the capacity out there.

So I was just curious whether that fit into the outreach, and that was why I opened my mouth.

DON HOLLANDER: It was, is just reminding us… From time to time, we get a little too involved, actually we don't get too involved. We get quite involved in the geekiness. And Avri offered, and we were quick to take her up on the offer, to remind us why we're doing this, because it effects people.

CHRISTIAN DAWSON: Couldn't say it better myself, absolutely. Thank you very much. This is why we're really doing this. It's not the ones and zeroes and making the form work. It's… Thank you for giving us that context.

AVRI DORIA: Thanks. But it was more than just the why you're doing it, it's actually also possible vectors for helping you do it. And if I didn't get that across, I wanted to try and do that.

DON HOLLANDER: Edmon.

EDMON CHUNG: Edmon here. And on that point, Avri, I think that's really something we need to grab hold of. We talked about the urgency issue, how to create a kind of urgency, but I think this is something, I wouldn't really, urgency is probably not the right word, but this gives us an in into governments and how they deploy systems into the future.

And we want to make sure that UA is part of that, you know, that immediate future, as they look down the STG implementation. So I think that's really what Avri is bringing up, and this is part of how we go out to, especially governments, because it's already on their agenda, we just need to make sure we slide it in nicely, and make it a core component of their SDG implementation plan.

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CHRISTIAN DAWSON: Do we have a copy of this slide deck?

DON HOLLANDER: We do.

AVRI DORIA: On the last page, there are some references.

CHRISTIAN DAWSON: Fantastic. Edmon and I are meeting with the GAC to go over UA initiatives, and in the next couple of days, and it would be nice to review these things before going in there. Great. Thank you so much Avri.

AVRI DORIA: And I'm willing to help more. You know, and I'll keep butting in and listening to your phone calls, and speaking up from time to time. So thanks.

CHRISTIAN DAWSON: Thank you so much Avri. Wonderful. And with that, I think we've got good food for thought to head into our break. It was supposed to be 20 minutes, let's take 15, try to grab five minutes back from the time. So let's get back here at 11….

DON HOLLANDER: When the big hand is on the four.

CHRISTIAN DAWSON: There you go.

DON HOLLANDER: Thank you very much, and we can stop the recording now. Have a cup of tea.

CHRISTIAN DAWSON: Hey guys, I know the break hasn't been long, but let's start to pull it back together in the next couple of minutes so we can jump into stuff. We've got a, still a lot to be accomplished. So I'm going to try and drive us forward.

Still give us a minute.

So this session, this is a 90 minute session, and we'll sort of split lunch. We'll sort of start with a working lunch, and then head into a break at the end. But this session is called content and collaboration, really it's two sessions. It's just that I'm leading them both. So I will take a moment at some point, to pause the content part of the discussion and shift to the collaboration part of the discussion.

But what we want to do now is very distinctly spend time figuring out what we need to build, what we need to create.

Documents we need to come up with in order to move things forward. If you take a look at… If you remember back to when I showed you the budget from before. The part of the budget for outreach in 2016 is relatively small.

We are not heading to a hundred trade shows, to give a slide deck, showing people what they need to do for universal acceptance. We're spending the bulk of our resources in 2016 on building lab measurement and monitoring environments, and creating a system, a well-oiled working machine that's going to allow us to effect change.

Maybe in coming years, we're going to focus a lot of money on doing things like tradeshows or big outreach advertisement, stuff like that. But for now, the bulk of our attention is spent on identifying the problem and creating documentation around that. So, figuring out how we're going to approach documentation, what needs to be built and who is going to build it is the topic of the next conversation.

And what I'd like to propose is that really we've got three different categories of documentation outreach that we need to focus on. One is, what we were talking about before. So to a CIO's guidebook, a technical documentation that's going to say, that's going to give somebody a blueprint for how they can accomplish what it is that they're going to accomplish.

If you walk into the office of somebody who is interested in taking on this project, we want to hand them a tool that's going to allow them to say, "Okay, now I know where to start, and how to gather the resources I need in order to get this done." The next is business documentation, or something to make, influence your documentation perhaps is the way you want to put it.

Because it's not always going to be a business case. Sometimes, as we saw before, it is a plea that is focused on doing the right thing and enabling the next billion people to get online. But some sort of influence or peace. That isn't necessarily geared toward a technical audience.

And then finally, we have an opportunity to put together a social general outreach campaign, that makes people generally aware of what it is we've got going on, in such a way that we can take the group that we've got here, and we can expand on it.

So, I'd like to sort of workshop all three. Spend some time on how we're going to address content in all three categories. First of all, if anybody has any issues with the categories as I've laid them out. We can address that first. But what I would like to get down in the next 45 minutes or so, is enough of an action plan around generating something around all three to where we can say, okay, you know, I am committed to working in a group of x,

y, or z people in this timeframe to accomplish putting out a document, to meet this goal. Dom?

DOM HOLLANDER: Thanks. So I'm okay with certainly the CIO's guidebook and influencers some communication, something written for influencers. But I just want to make sure that we know who we're targeting for our messages so for the next, through the end of June. Who, we heard Tony say he doesn't want the general population to think that there is a problem.

So, my sense is that our target communications, the people that were keen to reach out to is in the first instance, very large, email software and service providers. We talked about that in Buenos Aires, and things are starting to happen in that space. And I would also contend that it's the software industry that we want to communicate to, and their principle client will be CIOs.

That's, but that's my sort of putting a stake in the ground and we can shift the stake. But who are we looking to target through the end of June.

CHRISTIAN DAWSON: So that was the big work product that came out of Buenos Aries. We spent an entire day in a room there trying to figure out how we took this giant issue, and took the first bite of the apple. And

I think we did spin it down to those groups as the ones we wanted to focus on first. So I think that's the right context with which we approach doing outreach.

And you're right, that if we are going to prioritize how we're going to do content, we ought to focus on doing influence or documents or technical documents. If there is time, I think there is value in increasing our numbers, and part of the way we can do that is with a social campaign.

So before we jump into one of these categories and talk about how we're going to accomplish something. Does anybody have a problem with the categories? Awesome, okay. Well let's talk about the CIO's guide and how we're going to get it done. Let's talk about efforts that have been put together to try and pull together content to date.

I know that Mark has a document. Do you want to talk about what you have so far and how that might align with what it is we're trying to accomplish?

MARK SPENCER: I've been building a best practices document. Can you hear me? And it introduces the concepts, and then it goes on to talk about, here I'm looking at the table of contents now, what are the criteria that define universal acceptance? Accepting, storing,

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processing, displaying, and how you validate within those processes?

We list some of the user scenarios, and give some examples of, you know, what it looks like when it's properly implemented, what are some examples when it's not properly implemented. Then there is a large section on developer concerns, and I'm just starting a section on IT concerns.

And I think Ashwin's investigations will be useful for that. By the time it's finished… And by the way, this is a live document. You can edit into it now. I think the link to it was shared before the meeting. So you can edit into it, you can add comments and things, and there will be ongoing editing throughout the week. So please review it and comment on it as you go.

CHRISTIAN DAWSON: Mark, were you thinking of this as being the CO's guide? CIO's guide?

MARK SPENCER: That was, the original concept was for it to be a developer and a CIO guide. Whether or not it's achieving that, it's getting kind of big. So I would like feedback on whether this is the appropriate format or if it needs to be broken into two chunks.

CHRISTIAN DAWSON: Are there CIOs or people with technical background that have heard this summary and have any feedback right now as to whether we got the right scope there?

MARK SPENCER: Don, you're….

EDMON CHUNG: Edmon here. Don't really have that experience, but I think, I think it's probably two documents for development, you know, developer and what they need to focus on. And then a CIO, especially what Ashwin say, is very different from, I guess, the developer perspective of things. So I think it should be documents.

MARK SPENCER: I would be happy to work with Ashwin to building out the remaining section and break it into two documents, and then maintain it as such.

CHRISTIAN DAWSON: Okay. I would love to get to the point where we can get a plan around… Okay, two documents sounds fantastic. Is, I think you need a bigger team than that. Especially because what I'd like to

do is set some pretty firm timelines by the end of this meeting. We absolutely need… If we're not going to be flying all over the world, or doing big advertisements, we need something to show that this group is doing something substantial.

And the best thing that we can do is to create something technically substantial that we can hand to organizations that are interested in this subject, say Yahoo, which we're trying to make inroads with, and say, go through this. We don't have that now. We need that relatively soon, so turning to the room and saying, "Who else can help Mark?"

Because I'm not going to ask him to put a date when he can accomplish the creation of now two documents instead of one, until we can get him more resources.

CHRISTIAN DAWSON: I had actually considered just hiring a contractor to help with this. I don't know if that's viable or not.

DON HOLLANDER: We actually have budget to do that.

CHRISTIAN DAWSON: Okay. So how soon can we pay somebody to help you and get a final document or two?

MARK SPENCER: Edmon wanted to jump in. I'm sorry, I'm trying to…

EDMON CHUNG: Yeah, so Edmon here. So, I kind of… Just taking a slight step back and thinking through, this currently the document, I think the document reads well. And I think an additional document for kind of CIO perspective is great. What I do want to ask is, seeing Jeff and Andrew here is, whether this is something that we can take another step forward in terms of turning into a kind of RFC? Or, you know, eventually making it into a new informational RFC of sorts.

Whether it makes sense at all, because you know, just seeing Jeff and Andrew probably talking about, and not even knowing what they're talking about, but it's this kind of document that eventually, or even going into the DNSO, probably not, but this is, is this topic too broad to become something that would be a technical document?

Because if a RC is greater than might be, you know, easier to distribute to certain developers. That's just an off the, you know, just thinking out loud type of question.

UNKNOWN SPEAKER: So there are two things that I would say about that. First of all, the big problem with the current RFC publication format is that it's ASCII only, and you can't put diagrams in it. So as a pure practical matter, I recommend strongly against using the RFC format for that. And secondly, I'm not actually convinced that this is a…

So there…   It sounds like really we've got two different audiences here, right? And so for the developers, I can see a best practice suggestion. So you could be a test, you could be like a guinea pig if you want, because the RFC format is about to change, and it's supposed to allow all of these kinds of things.

But that would be a way to impress the IETF, if you really wanted to do some innovation there. But I think that what you really need here is something that many kinds of developers are going to look at, and the people who are developing user interfaces, which is a lot of what we are talking about, don't look at RFCs, because the RFCs all say, we don't know anything about user interfaces so you've got to go somewhere else.

So I think it's probably something more like a stack exchange environment where you've got something in get hub and people get it. That's where I would put it.

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UNKNOWN SPEAKER: The existing document does have a little section at the end, as I said, this document is getting big, called topics for potential proposals to the ecosystem, ICANN, IETF, etc. And it includes things like, where there is some normalization, there is some ownership issues, you know, should you register two strings that normalize to each other, to different people? You know, the example that I have here is foosball and foosball.

Okay, so those don't even belong to the same people. You know, so sort of bundling at the registry level. Really looking at the delegation of how to graph domain names at multiple levels, not just the TLD. Are we doing that correctly?

The what I call IDN style email, which is the Punycode string in the domain side, is not actually defined for use outside of DNS, if I've been reading the RCs correctly. So I mean, it doesn't even have a name, that's why I call it IDN style, because it doesn't really even have a name.

And it does? A Label email? [CROSSTALK]

DON HOLLANDER: …A label form of the domain part only. On ASCII compatible encoding is what you're talking about. So ASCII [CROSSTALK]…

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UNKNOWN SPEAKER: …an email address with an A label in the domain section. Well is that defined anywhere?

DON HOLLANDER: Sure. Because it's just an ASCII email address, right?

UNKNOWN SPEAKER: Well, it actually, within an email system now, it's actually pretty different. It's a different sort of a thing.

DON HOLLANDER: No, no. It wouldn't be, because you get a [CROSSTALK]…

UNKNOWN SPEAKER: We'll talk about it, but I know for my developers, it's a very different thing for searching, sorting, parsing, etc. [CROSSTALK] So another thing is like structural separators for left and right. There seems to be some misunderstanding or ambiguity there. Things like that. So those are the list of things that we have within the document now to follow up on, with larger organizations, and maybe set out some proposals, if not RFC level standards as we collect more and more of these.

I'm collecting them in this document, as I mention the document is becoming everything for everyone, but that's where it lives today.

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CHRISTIAN DAWSON: Everything for everyone seems to fine to me. Jeff wants to make a comment then…

JEFF HOUSTON: From a standards perspective, I suspect you really are trying to boil a notion that's never been explored. Don't forget that when we first looked at IDNs in the context of domain names, we understood what we were trying to map into. The whole LDA issue. And so we did ASCII encoding because we weren't really sure that the Internet could take full eight bit transparency in the DNS.

But I understand from the topic I've been hearing of today, you can sort of call it anything you want. This gets into the use of IDNs all over the network in any kind of context whatsoever. And that's a kind of ocean that has no standards to underpin it that we understand. There is nothing underneath there, because you're not constrained by LDH. You don't even understand what normal forms are, but somehow you just want to use them in a way that's unique and unambiguous.

And you sort of, you know what you want, but you have no idea which body is going to help you get there. You've got this sort of Unicode dictionary of symbols, right? You've got a whole variety

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of ASCII encoding, great. But between the two, there is this yawning gulf of how do you apply it, where, and what sorting and searching is, etc.

The ITF is not core equipped with skills to help you here. Those folks don't go to those meetings. So at some point, like Andrew, I'm throwing this back, going for a long history of involvement in the IETF myself. I know when I'm out of my depth, you know, I'm totally out of my depth. I could speak for most folks who go to IETF meetings and go, we're not going to help you on this.

We'll help you with the DNS because we understand the DNS, not because we understood IDNs. And that's really what you're asking for, Edmon. I think you're asking for way more than the IETF is in a position to give you with any degree of timeliness, competency, or usefulness. And so it's back to the application industry in all of its broad sense, the application folk going, what are you going to do about IDN?

UNKNOWN SPEAKER: So, my background is as a small business entrepreneur. And so my tendency is to want to try to run this like a lean startup, and the goal there is to put something out into the world. If you've got to boil the ocean, you put something out in the world, you get feedback and you iterate. And so my hope is that this

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document may start to be, it may seem like it's trying to become everything to everyone.

That's a problem that's probably going to get worse, way before it gets better. But what I'd like to do is to drill down to some dates that we can put something out there into the world. It doesn't need to be done because I don't think this issue, this document is going to be done. We're going to break it off into multiple sections, we're going to spin up many more.

Chances are this is an issue, that like you said, is just going to be too complex to not continually iterate. How can we…? Can you pick a date where we can get a deliverable out there?

UNKNOWN SPEAKER: The way I've been approaching this historically is, there was a version for Buenos Aries, there was a version that was shared last week for Dublin. There will be a version in a few weeks for the IGF in Brazil. So whenever I'm going to an event, I make sure that the latest version is ready for review. So if you would like to…

The question is not, when will there be a version for sharing? The question is, what level of completeness would we like it at any particular date? There will be a version at the end of this week, after I've collected all of the feedback from here. And

there will probably be an update to that for the IGF in Brazil next month.

So the question really is, what do you want at any particular date?

UNKNOWN SPEAKER: What I'd like is for the universal acceptance steering group to be able to announce the first release of a document that we say, this is good enough to go out there and start conversations with CIOs. And I want to know when the document is going to be at a level which you're comfortable making that claim. Don?

UNKNOWN SPEAKER: Okay. Well, off the top of my head, I would say before the IGF meeting in Brazil, which is I think the 13th or 14th of next month.

UNKNOWN SPEAKER: That is… Don, why are you shaking your head?

DON HOLLANDER: Thank you. So it's Don Hollander here. Because I don't think Mark is getting enough feedback from the community on the document, as in nobody has read it, would be my guess. I won't say nobody, but virtually nobody. But one of the things that I see coming either out of this document, and I think it will be

more than two documents, is some good practice guide. Not necessarily best practice guides, but some good practice guides in a host of topics.

One of the things that Brent is going to talk about later, is his experience in getting interoperability testing happening in EAI. And some of the work that Google has done, and Microsoft has done, and Apple has done, as they deploy their, as they build their EAI compliant systems, is there is nothing in the RFCs about this.

We have to make a decision, and we'll make that decision in isolation because there has been no place to gather and have a beer. So I expect that there will be a series of good practice guides with some options, and what I hope will happen by sometime next year, is there will be enough work done in the EAI interoperability work for there to be a set of issues that should be resolved at a standards level.

Maybe, maybe not, but that's my anticipation. Brent.

BRENT LONDON: Would it be acceptable in the document to leave place holders for good practices pending further development?

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UNKNOWN SPEAKER: Yes, there are some sections right now that are just marked with a capitalized to do.

UNKNOWN SPEAKER: So the reason why I think that is an acceptable solution, is that I would fear that we'd put good practices in there, that we don't actually know are good, they're one of potentially a dozen ways to solve the problem. And it might cause people to go down route number two instead of route number seven.

UNKNOWN SPEAKER: To Don's point a moment ago, I was about to add the caveats to my date, which was, if you want to announce it, it needs to be reviewed and feedback given in time for the edits to happen. And so that would be an assumption for any given date.

UNKNOWN SPEAKER: So we do have two other sections and 25 minutes that I would like to get back. So I have two sort of final questions that I want to go over before we move onto the next section. Can we work to get Mark the paid feedback he needs, and maybe even help him with somebody who can try to drop some of these best practices documents?

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IGF can be a test run, I think, but maybe set a date by the end of the year that we try to get something developed, because by then we probably won't even have a person. Can we start to look for a person?

DON HOLLANDER: So at the Horsham meeting, the USG coordination group, we talked about how do we go about engaging spending money. And it was pretty clear from the discussions there, much to my chagrin I might add, that the group wanted to go out to a formal structured RFP process. I'm not convinced that this is a big enough task to go for a RFP, and it…

Somebody has to choose… Somebody has to make the announcement that says, "We're looking for somebody to do this," and then the funding part, I think, is all pretty straightforward. Somebody sends a bill and we pay it.

But how do we find the person? And we just need to be sure that it's an open and transparent process, and it's not just your drinking buddy.

UNKNOWN SPEAKER: But, it may make sense… I think we should table this discussion. Maybe us and Rich have a sidebar to figure out who it is we're going to bring in to do this. But if anybody in the room

has a candidate, they do want to bring to the table, even if they are a drinking buddy, I would say go and tell Don.

UNKNOWN SPEAKER: I do have a candidate in mind and I'll tell you about it.

UNKNOWN SPEAKER: The second part of my question, because I think, we would like to work towards an end of the year date. If we can get a candidate who can help, is venue. We had mentioned the possibility of starting to put this documentation in a stack exchange or get hub environment. Creating something like that may also get Ashwin the forum type of engagement that he wants.

Is there some sort of a location that we should set up for this documentation that can, again, double as a forum type of environment? You mentioned liking, get hover stack exchange. Should we set up that environment?

UNKNOWN SPEAKER: What I was trying to… I think what I was trying to ask, and actually I was just putting a thing in the chatroom, but there is really more than one audience that you've got to pick here. And now it sounds actually like there is more than one thing you're

trying to do too, right? One of them is, CIOs hear, "You need to think about these problems."

And the second one is, CIOs here is how you ought to change your direction. And I think if you're going to do number two of those, the IGF is probably too soon. And the end of the year is almost certainly too soon. But the first list, probably you could compile in the next couple of weeks.

I don't think that those people are likely to turn up on stack exchange or doing things in get hub or anything. I think they're going to think that like, you know, what is this weird geeky tool? Even though I find it sort of weird and gooey. But the developers, on the other hand, you know, if you want a stack exchange that says, you know, wow, I've got this really hard problem. I don't know how to do this thing.

Stack exchange is a good place to put that kind of stuff, because that's where developers look for answers in the first place. So that's that audience. And I think there are separate kinds of problems. I'm not a CIO, and I know many of them, and they talk in way that I don't understand.

So I couldn't tell you where you need to look for those people.

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UNKNOWN SPEAKER: Fair enough. That can be something that we figure out as we near the end of the year. I would like to move on then from the technical CIO guide, now that we've got some traction there. Don you have another comment on that before we move on?

DON HOLLANDER: I just don't think you've got resolution. So in terms of who, what, and when, because that's what Rich is, he's got a little spreadsheet and he's trying to fill in those bits. I think and my suggestion would be, who would be Brent and Mark. When would be the 14th January, 2016 because there is a face to face UASG meeting scheduled for Washington, D.C. then.

So it's nice to have a meeting to have a specific deadline. And who, what, when. Those are sorted. What is a CIO, CIO guide and a systems architect guide, and a bunch of good practice guides. And even for the good practice guides are just a heading that we need a good practice guide for normalization, or for how you store things, or how you display, or how you search.

Then I think that's okay. Jordon.

JORDON: So I think as you just pointed out, we were completing two things, right? Like there is a CIO's guide, which is for a CIO, which is, you know, probably this person was technical at some

point, but they're probably not doing a lot of typing on keyboards anymore.

And that job is to give it a high level introduction to the problem, get them interested, and get them started on the work. And then, there is a whole bunch of stuff where the guy that the CIO pays, like the people that the CIO pays, many of them will be not guys, will have to like go and actually do all of this stuff. And that's much closer to the sort of stack exchange and individual bits of code and practices, whatever they are.

And I think if we try to do, a you're not going to get to all of that other stuff by January, and b I don't even think we've defined how we're going to start to formulate all of that other content. And so, it seems fine to say like, we're going to get to the CIO guide by January. I'm not sure that's necessarily the best thing, you know, the best place to start.

But at the very least, it seems like if we, once again, think about the UASG as being a coordinating body, going through and sort of starting to inventory, where are the bits of work that we need to do. As you're writing the CIO's guide and sort of saying like, hey, here is the interesting problems that you're going to have to solve, inventorying what those things are, and then figuring out what the right forum, whether it's the UASG or somewhere else to do that work, seems like that would be a good inventory of

problems that we need to solve, seems like a good place to get by January.

And that could be driven by writing the CIO's guide, just to give you an inventory of the types of problems that the CIO would have to tackle.

DON HOLLANDER: So I'll say, yeah, plus one. And I think if you write the guide for the CIO, and I'm saying CIO slash system architect, or program manager for the work, where there are choices that they need to make, and then work to fill out those papers that show the pros and cons of different options.

UNKNOWN SPEAKER: I think the important thing is to link those… Like once you figure out what the problem statement is, where are we going to solve that problem? Because often I think the answer is not going to be this group of people.

UNKNOWN SPEAKER: I think that's a very good point. And after… The way that we have structured today, we did just the opposite of how we did it last year, where last year we ended on, okay, what are we going to write? After we spend the day talking about the issues. What

it is we were going to do now. We're fairly close to the beginning of our workshop, and we're saying, what are we going to write?

It's a little a trickier, but we have been writing stuff, and we've got things that we've got to get accomplished. Now we've got this weird exercise where we're going to contextualize the things that we talk about being issues, and the rest of the day, with what we're already committed to doing. Okay, we know we want to put some things out there into the world. We're going to get volunteers to do them, and then we're going to learn about what needs to go into that.

We're sort of, it's kind of a weird exercise. But I think we can still do it this way. If not, we'll scrap it and go back to the old way in the next workshop. But for now, we have some timelines, we'll see if we can reach them. We'll learn more about how to properly contextualize them throughout the course of the rest of the day, and I'd like to now move on to the next session, which is for all of the people that aren't technical in the room, who said they wanted to find ways to contribute.

What we do not have right now, at all, to my knowledge, are initiatives that are focused on creation of influencing documents. Now remember, in Buenos Aries, we decided there are two core focuses. On EIA, sorry. On email providers, large

scale email providers, and the software developers, and reaching them.

What we have so far, as far as documents is short animal that we've developed. Who came up with the email? The Chris Coward, yes. So Chris Coward came up with an email, basically a short outreach statement on, this is something that you really need to look into. That's pretty much all we have on our docket right now, as far as influencer documents.

And it seems like we need to do more. So knowing that we've got those two target audiences, I'd like to see if we can have some discussion as to what we should be building, and then get some volunteers and some timelines around building them. Don, you said you wanted to say something.

DON HOLLANDER: So thanks very much. In the budget document, and I don't know how many people looked to the left of the numbers where there were some words, there is certainly a vision in that document to produce some case studies for different industries. And one suggestion that came up in the discussion in the past week or so, was to find some influencing CIOs, so the CIO of Walmart, CIO of Bank of America, CIO of SAP, CIO of Delta Airlines.

Not the CIO of United Airlines. And get them to say, you know, do a little story that appears in Forbes, or Fortune, or whatever, about why they're making the investment to be UA ready. And so there is money in the budget to hire a PR firm, com firm, whatever, to create the stories, and plant the stories, and get them published.

UNKNOWN SPEAKER: That's excellent. And if that's what the community decides we want to focus our attention on, we still need volunteers to help guide that process. And so that maybe, what we can get out of this part of the conversation today. Thoughts and ideas as to what needs to be done? Or volunteers to become a part of creating this stuff or guiding it? Emily.

EMILY TAYLOR: Yeah. I was just thinking, we were chatting in the break about this, about trying to leave Rich some of the work that sort of going on out there, and I see a colleague here from [inaudible] as well. So we've been working for many years with Verisign and with [inaudible], on sort of just tracking IDN implementation.

And I think that for the non-technical audiences, there may be some small, you know, it's quite a heavy volume actually.   It's not exactly light reading, but there may be some example and

some lessons that we can extract from that try to tell the story about why these things help with multilingualism, why they might help with development goals that we were hearing about beforehand.

And then, then the kind of next bit in the conversation is, but they don't work very well at the moment. And so there is something that we can all do. But I think getting in it, and also bearing in mind Tony's warning not to sort of spread panic and a fearfulness, but a sense of, you know, that there is this opportunity to get more people online creating content, and navigating into content in their own languages.

There are groups of people who are working together to make this happen, from industry, from Civil Society, and so on. So it's sort of being done. I think some practical steps that could be done is to try to extract, you know, either we've been trying to think about visualization of data, or even infographics to try to tell the story in a much more engaging way.

And so this might be something that we, you know, I don't, I can't and don't want to commit [inaudible] or even Verisign for that matter to doing anything, but to just sort of start get some thinking about are there ways that we can leverage existing evidence based work? As people like evidenced based policy

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making, to try and sort of raise up and get little extracts that might be engaging for people.

And I'm very happy to join in and try to make that happen, if that's helpful.

UNKNOWN SPEAKER: This brings up a point that data about the scope of the issue, be it TLD data, or be it market sized data, it's useful when you're trying to make, or influence an argument for business reasons. And it's useful for trying to make an argument for Civil Society reasons. For other ways to influence. So maybe we want to apply those funds is to help figure out how we can pay for some of this data.

And Emily, if that's something that you're interested in, that seems like a pretty useful project for this group. Any other thoughts as to what needs to be done to create, influence documents? Are we talking about emails? Are we talking about a document that needs to be put on get hub or sent out to Twitter?

Like what is going to…? What kind of influence or documents are going to get us to where we need to go to. Brent, you spent some time trying to get a hold of Yahoo, is that right? What kind of influence documents do we need for them?

BRENT LONDON: I don't know yet. I'm planning to get lunch with someone from Yahoo next week. My suspicion is that I would not use a document at any point during this interaction with someone from Yahoo, partially because we don't have answers to some of the email questions, as I'll talk about later, but also because it's a kind of an informal interaction. I don't know that I would feel comfortable to just like send out a document that doesn't totally answer the questions in some situations.

So in this particular case of reaching out to email service providers, I don't believe documents are going to be exceptionally useful. Especially since I'm not talking to CIOs. So handing a CIO to the tech lead of an email team wouldn't make much sense.

UNKNOWN SPEAKER: Would data be useful? Worth a conversation?

BRENT LONDON: Yeah, data would be useful. For a casual conversation, there is a lot of anecdotal data, like greater than 50% of the world speaks the language that uses non-Latin based script. That's billions of people that are a potential market that aren't served thus far by

email. We don't need to commission a whole project to get that kind of thing.

So I don't know, I'm just envisioning sitting across the table from someone and like opening up this binder and having lines and lines of statistics and trying to determine whether that would actually be moving beyond, would naturally come up in conversation. I don't know. I think this is an interesting topic for discussion.

UNKNOWN SPEAKER: But what you just said, those are, I guess, we call them talking points, right? At the very least, we can put together [an official UA] document points. And maybe it's data that we don't need to pay to get, and that itself could be useful. Andrew, you got something?

ANDREW SULLIVAN: So, I have struggled at my employer to this, as a serious problem. And now suddenly, what's happened is there are certain people in the sales organization who are selling into areas where they're running into this problem, and all of the sudden this has moved from problem of value zero, to problem of, you know, do it tomorrow. And so the question that I think this group could either find or pay for, or whatever, to answer, is

really where, for instance in the case of email, how many people are not using that thing because they can't do it?

So what is your real market size? Because if I want to convince people in the company to spend developer hours on this, I need to be able to show them how many customers they're going to get out of the thing. And if the answer to that is, well, you can get a billion customers tomorrow, I'm pretty sure that Yahoo would be interested in a billion more eyeballs.

Just a guess, but so that's the kind of market sized thing that I think would be really, really helpful. And to my knowledge, that data is not anywhere yet, in one place at least. There are probably some pieces of it, but.

UNKNOWN SPEAKER: Jordon?

JORDON: Yes so I think this conversation points to a real weakness of the way we do things at ICANN in general, which is we very rarely have useful user perspective beyond anecdote. And I think one area that ICANN can do a lot better in general, would be to have a lot more user data to inform our decision making.

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And this strikes me as an area where user data would be very helpful. To Brent's point, I'm not sure you walk into a conversation with Yahoo, with some particular set of statistics, but if the UASG could drive some user data and collect that, at the very least, next time Brent went and talked to Yahoo, he would know more things then he does today, which is, you know, like we know off the top of our heads that, you know, half the world's population or something like that, but how often…

Like we know things like in the developing world, people tend to, you know, we have a lot of people using mobile devices as opposed to computers. And therefore, a lot of them using, well, and maybe not therefore, and in addition to that fact, a lot of them use non-email systems to communicate with each other.

Now are these related to each other? Or is it because they can't work email, because they can't type their name into the email address, right? And so they use their phone numbers or something like that instead, because it's easier to work with. We don't know the answers to those questions.

We don't know like what strategy and the behaviors we see on the world, or even how common they are. And so, some of that already exists, like you can certainly see like what frequency people use emails in various different countries. But you probably have to go a step further and like ask people questions

like, why don't you use email? In order to get to the data that would be really informative for this group.

UNKNOWN SPEAKER: I would like to propose that maybe we pull together a small group of volunteers to try and create sort of a talking points memo. And it might be interesting to find out, as we're trying to list the things that that would be key influencers in making people make an UA decision, what we know and what we don't know.

And that group might be able to report back and say, "Hey, here is the list that we've developed. That we think are influencing issues. And here is the stuff that we would love to know and be able to present facts on, that we don't have." See if we can spin that into another project.

UNKNOWN SPEAKER: I hate to be just the secretary, not that that's a demeaning role by any means, but how many people do you need to help with that? And can we get volunteers? And when would we need to have this done?

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UNKNOWN SPEAKER: Excellent question. I would like to help champion this, and I would probably… I would love to have a couple of volunteers would be willing to work with me on this project. Emily? Fantastic. Yuri? Fantastic. Okay. The three of us, I think, let's set a goal of creating a, well, the other team got to the end of the year, but it was a much bigger project.

So let's shoot for one month from today. For the completion of that project.

DON HOLLANDER: It's Don Hollander here. We heard in Buenos Aries from Karen Lintz of ICANN about their survey of consumers on knowledge about TLDs, and we will hear this week about their survey of registrants, similar sorts of issues. They will run a second survey of consumers next year, and they will run a second survey of registrants next year to see what's happened, what has changed.

So if there are questions that you want, we can engage with them to see if we can include them. My suggestion would be very, very few questions. But have a very tight target as to what's… So if you can get your questions, yeah, this is what we know. This is what we would like to know. If we can get that developed earlier rather than later, and as specific as you possible can.

UNKNOWN SPEAKER: Okay. We'll work on it.

UNKNOWN SPEAKER: Yes, I fully agree that the work that has been described on CIO materials is much wider, but it's also further advanced than this, so could I just plead for a bit more time and maybe we could also be aiming to get something ready in the early January timeframe, unless that's… Ron is making faces. So maybe that's too late.

But I think that, yeah, from starting from scratch and thinking about the next month ahead, I think that might be a little ambitious.

UNKNOWN SPEAKER: That's a good point now. I would definitely advocate for another January, especially if we can do the process that Don was talking about, about finding out what we want to know and we don't know, but also then researching to see what is out there.

UNKNOWN SPEAKER: Just a brief advert for I think on Tuesday afternoon, a group of us are going to be presenting results, interim results from a Middle East report, which Yuri has undertaken with other

partners and as part of that, we asked users from the region about their use of domain names. And we found some interesting things that I think could help us here, like people from the region are more likely to do direct navigation with domain names.

They're more likely to look at domain names before clicking search results than users in the rest of the world, comparing with them, study that the DNA did. So I think that there is evidence that people use, you know, there is a sort of anecdotal thing that people aren't using domain names anymore.

I don't think that's true.

UNKNOWN SPEAKER: So what I'd like to do is move us on from this topic. Now, so we're going to push for an early January, we're going to keep the same timeline as we had for the last one, but increase the scope of the project to do research to, once we have determined the list of things we don't know, to see what else exists outside of our own community.

See if we can get a more comprehensive list.

UNKNOWN SPEAKER: I'm not quite clear then. I thought the original most recent action was creation of a set of talking points. Somehow that's morphed into create, doing research, that's just part [CROSSTALK]….

UNKNOWN SPEAKER: Because it's data backed talking points. And so we're researching data points. Before we were just going to make a list. When I said one month, we were just going to make a list of the things we don't know, and come back to the community and say, "These are the things we know, and these are the things we don't know, and here is a list of talking points for now, maybe we should research these."

Now we're actually going to look at these, in the context of the scope of this project, and push it off to early January.

UNKNOWN SPEAKER: Can I suggest…? So you're 80% of the way there, you're figuring out the things you don't know, you're figuring out where there are existing external data sources to answer your questions, and then the last thing you want to do presumably is for the things were there aren't existing data sources, is figure out what's the plan to fill those.

I don't think you're going to fill the gaps by January, but you should know, like, oh we're going to go do, we're going to add it to the ICANN survey. Or we're going to do our own survey. Or we're going to like send 20 people to you know whatever it is, to like Pakistan, and have them walk around and ask people questions. Whatever it is, we should know the answer to that, hopefully, by January as well, so then just like with the CIO thing, that you sort of like framing, here are the additional bits of work that we need to do from that point out.

CHRISTIAN DAWSON: Okay. Good to know. Now that we've got some action points on those two, I would like to close out this section. Like I said, this is split in my conversation that I'm leading today is split between content and collaboration. What I would like to do is close out content with a short conversation about social and external outreach, and then we're going to take a moment to gather up some food and we can talk about collaboration over a meal.

This last part could be brief. Basically the idea is how much we should do regarding social media and general populous outreach. We've already talked about how are target markets, our software developers, and email providers at this moment, that doesn't mean that we can't indoctrinate more people into

the work that we're doing, and social media is a potential tool for that.

That doesn't also mean that we can't reach software developers and email through social engagement. We had proposed on the list that we create an independent website, and a Twitter handle. And had come up with a couple of different possible solutions for those.

One that had secured earlier, was get ready Get Ready UA. G-E-T-R-E-A-D-Y-U-A. I have that Twitter handle, and we can go ahead and secure that dot UA domain and have get ready dot UA. There have been some comments that, oh maybe we ought to try this, maybe we ought to try that, but there haven't been firm proposals on anything else.

And so I would like to open it up to the community on what people think about that, about other options that may exist. And let me put one thing out there that we discussed in portion. Whatever we use social media for, we're going to be extremely careful to make sure that we're using it responsibility and within the mandate of UA, which is basically to champion the idea that people should update their systems.

We're not going to make the mistake that Tony outlined, about mistakenly indicating that there are problems with TLDs. Everything that's going to go out there is going to be

championed, or it's going to go through a process of verification, and everybody… And the group that authorizes documents to be brought through to completion is going to be authorize Tweets. So we're going to be careful about how we use social media.

But what name do we choose? Is everybody cool with Get Ready dot UA? If so, go get lunch. Awesome.

UNKNOWN SPEAKER: Before lunch though, I just interject, many people may not have noticed the really, really cool stickers, decals that we have for phones and laptops. I have them, so if you like them, please find me, otherwise I'd be running around and sticking them on people. So thank you.

UNKNOWN SPEAKER: Nice. So let's get some food, and in about 12 minutes, even while we're still eating, I'm going to start talking again about collaboration.

You can stop the recording for about 12 minutes.

Hey guys, I'm going to make us work through lunch, in part because right at one, I need to turn the mic over to my colleague, Rich here, to take over for the second half of the day,

and I want to make sure that we get the things that were accomplished on my list of responsibilities taken care of, between now and then.

The section… The focus for the next half hour is on collaboration, and what we're doing here is we're acknowledging that this group, the people in this room, even though we had a great turnout today, are not going to make all the things happen that we need to happen around the world in every pocket of every place, on universal acceptance alone.

And we acknowledge that people have been working on UA issues, people have been working on [inaudible] issues, such as IDN issues, and EIA issues, and issues surrounding universal awareness of TLDs for a long time. Some people have significant efforts in there. The goal of this part of today's talk is to figure out if we've got the right relationships established with the groups that are working on these issues, so that we can be champions for each other's efforts, and so that we're not redoubling efforts, or doing work that somebody else is already doing.

So as part of this conversation within this half hour, we've got people who are poised to speak about what it is they and their communities are doing, so we can learn from them and we can figure out what points of collaboration we need to do. But we

also have, we also need to just go to the community here and say, well who are we missing? Who is working on this stuff that we should be talking to that we aren't?

The biggest thing that I want to get out of this, is the answer to that question. But first, let's figure out who we've already determined is taking efforts in this manner, and see if we can hear a little bit from them and how we can best collaborate with those groups. One of those is Tony who is going to tell us a little bit about what the ISPs are doing.

TONY HARRIS: I'd be very happy to, but actually Don asked me to speak earlier, and so I blew all of my speech. But I do have a couple of suggestions, people who should become involved, just scanning through, you know, Googling a little bit. In the LA meeting, we had a registry came to the ICP constituency meeting, and showed us some examples of, their domains were not resolving when people tried to do home banking, and entered their personal data, and the data contained an address with a new gTLD domain.

The answer from the bank was, this is not a correct domain. You should use dot com, dot net, or dot org. The banks, we saw were Bank of America, City Bank, and a couple of other ones, they're not exactly small banks. I just, just scanning here, I see there is

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an American Bankers Association, that has an online training program for their members or all of the banks, which does pretty much what we're talking about, updating them about technical issues and things like that.

This might be a good doorbell to ring. It's www dot ABA dot com. Another organization I was involved with some time ago, was CompTIA, I guess some of you know who CompTIA is. They're a big certification organization within the United States. They're huge actually.

And they're all about training people with software tools and certifying them. They would also seem to be a good organization to get involved. And getting back to what I said earlier, I would go to the GMSA, the big mobile industry federation, and hop onto their offering, turn up at their events and start talking about this, even if we don't have the perfect documents yet to follow on with our presentation.

It wouldn't hurt to get them thinking about the fact that this is out there. And I'm sure we would generate, there would be a lot of feedback from them, because they are concerned. They do not want to have problems with their online, I'm sorry, with their mobile Internet service usage. The last thing they want to do is have problems with customers telling them that things don't work.

UNKNOWN SPEAKER: So I propose that as we move forward with this session, because we've gotten into the who should we be contacting, which was, I guess, said what I said at the beginning. So that makes sense. We ought to come up with three lists. Rich, for your purposes. One is organizations which, with whom we are already collaborating. One is organizations that have active issues that have active programs, with which we need to collaborate.

And one is organizations which we just feel like we need to touch and get involved and that may or may not already have active programs. And I think the thing that organizations that you just outlined are probably in that third category. We don't know whether they have UA programs, probably most of them don't.

But we should work on active outreach to them. Does that sound appropriate?

TONY HARRIS: Yeah. Well the point is that I'm looking at organizations that are big enough, because you've got hundreds of software associations, national and regional and whatever. Didn't get associations or, let's say, federations that are global to the GSMA, or CompTIA even. I mean, you've got scale there, which is

what I'm thinking about as a starting point, and other associations look at them.

UNKNOWN SPEAKER: Great. So let's say we're building three lists here in this session. And we've got, were you able to record an example of the organizations that we should do outreach to, for that third category?

UNKNOWN SPEAKER: ABA, CompTIA, and GSM.

UNKNOWN SPEAKER: Fantastic. Well, so now we'll spend some time focusing on organizations which we already have active collaboration, and ones that we should have collaboration with. I'll start out just briefly mentioning somebody to put into that first category of groups that we already have active collaboration in, by mentioning my own group, the Internet Infrastructure coalition, or I2 coalition.

We have active collaboration with us because they dedicate my resources and time in order to work on this function. The I2 coalition has a best practices working group. It's made up of organizations, registries, registrars, RSPs, data centers, and

hosting providers. These companies all come together to try and solve these problems. And so their big way of addressing this is by dedicating my time, and I have to go back and report to them, on what it is we're doing.

But that doesn't mean that I can't use the group and its members as a tool for the outreach, when we have the right materials to bring back to them. If we develop subgroups of hosting providers, data centers, and registries and registrars that are actively working on this issue and want them to report back. We can leverage the I2 coalition as a way to gather up those members.

So I'll put them on the list as active collaborators. Next, I think it might make sense to call on Andrew because I think that IETF might be on the list of possible collaborations, or should be collaborations, and we ought to explore that next.

ANDREW SULLIVAN: Okay, so just to be clear, I am chair of the Internet Architecture Board, which sounds like I can speak for the Internet Architecture Board, and I want to encourage you not to believe that, because I can't. So, the way the formal interoperation of the IATF with everybody else works is it goes to the IAB, and so that's the reason I'm [inaudible] here.

The IATF, the things that we have been doing, of course, is that we create protocol standards that all of this stuff relies on. So EAI, for instance, came through the IETF, and now it is standardized, so now people have something to implement. IDNA came through the IETF, both of these went through the IETF twice, because you know, we tried to update, it turns out they didn't work the first time.

So, we have these protocols, but the IETF doesn't do user interfaces, and the reason we don't is because we're incompetent at it, and so we try not to. The reason this is slightly problematic is because the IETF makes these identifiers, right, that's what names and email, or domain names and email addresses are, and they turn out to leak out into user application space, and so there are all of these user implications, and we don't know what to do about it.

So, if you've got gaps that are problems that protocols don't solve for you, it is helpful to get that feedback back into the IETF. And sometimes what the IETF is going to say in response is, well that's a problem at a different layer, and we can't do anything about it, but sometimes with the IETF is going to say is, gee, if you're going to use it that way, then this protocol won't work for you and we need a different protocol.

And so that's a useful thing to do, and if you've got like a concrete example of something like that, then that's good and can work for the IETF because the IETF is good at that kind of thing. But that's typically the way these kind of things get developed at the IETF.

The IAB also has an internationalization program, so the IAB, among other things that, the IAB is the Internet Architecture Board, I don't think I said that. The other thing that the IAB is supposed to be responsible for is the architecture of the Internet. And, you know, that's a small little part of our problem. And so we try to work on those overall architectural issues.

And I think that the kinds of implications of the way the protocols work for actual users are the Internet is actually squarely part of the IAB's problem, although we're not going to say, you know, here is how to fix this thing. What the IAB generally does is it produces documents and so on that says, you know, this is the kind of consideration you need and so on. You need to think about this.

The internationalization program at the IAB is having a lot of problems right now because we've got a real shortage of people who can contribute to it, and who have the necessary depth of technical understanding of what the protocols and so on. So if

you, you know, have some cycles to spare and you want to work on these kinds of things, and you want to know about the details of the bits on the wire, not so much the user and so on, then please come and talk to me, because boy do I have a long list of work for you to do.

You know, that is one of the areas where we are struggling very much because it doesn't seem that the IAB can, you know, like it can't do it on its own. It needs the program to happen. Nevertheless, we have identified a number of areas that are an issue here.

Another program that the IAB has, is a names and identifiers program, that is concentrating on long term issues of identifier use on the Internet. And so there is a direct consequence for the work that's going on here. And probably that is a program that is going to want to pick up on some of the things that you discover and so on.

So those are some areas that I can imagine, you know, some collaboration could be useful, and some cooperation. But the last thing I will say is, you cannot expect that the IETF will solve like, can make a solution and impose it on other people, right? The way protocols work on the Internet is that they're voluntary.

And this is either a fact about the way the Internet works, or else you're dreaming because the thing about the structure of the

Internet is that you can't actually tell anybody what to do. If you do, and you're not telling something in their interest, they simply won't do it. So we need to structure all of this advice that we give in such a way that people have a self-interest in it or it's not going to happen. There is a long standing history of problems of this sort on the Internet.

A very good example of this, for instance, is the ingress filtering stuff, which causes people to leak stuff about their networking addresses and so on. They get out on the Internet. The reason that BCP 38 has frequently not been implemented by people is because they don't see anything in it for themselves.

What they see is vantage, and I have the cost. So there is a long history in the IETF of identifying things that way and saying, look you've got asymmetric relationships here. And we've tried to do that with the internationalization stuff. And we've tried to do that with other kinds of things like for instance, acceptance of names that you don't know about because you have a static compiled list of the root zone and so on.

We've tried to encourage people not to do that, not because you know, it's good for the Internet or something like that. Nobody will do things for that reason, but it lowers their own cost. And that's a big feature of the way that we try to work. I hope that answered everything you wanted from this.

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UNKNOWN SPEAKER: It did. So, actually, could you grab the microphone for one more second? So, I think we've got a good glimpse of the ways in which we can collaborate. But it would be very nice to get a specific collaboration in those areas. A person that we can contact…

ANDREW SULLIVAN: Well I guess it's me because I'm interested in this. We have a small number of people in… Well, the other person I would say who is conceivably worth talking to about this is Suzanne Wolff, whom some of you will know, because she is the IAB lead for the names and identifiers program, so she is interested in this topic as well.

But you know, those are some people that you might know. We have some other people around, who show up at ICANN meetings regularly. Two of them are the technical liaison group for the Board, right? Warren [inaudible] and Paul [inaudible], I think who it is right now. So they're here frequently.

And [inaudible], and I'm going to ruin his last name, but anyway, he is the IAB liaison to the ICANN Board. The problem with those people who are on the ICANN Board, right, is that you can't ever talk to them because they're always in Board meetings. So you

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can look for other people like, you know, I show up at these meetings somewhat often. I tend to join mailing lists. I joined this mailing list today. So that you can contact me. Email is generally the best way.

Probably what will happen under those circumstances is I won't do the work, because now that I am IAB chair I just get to go places and talk, which means that I don't have time, actually, to work out any of these problems, which is unfortunate. So typically what will happen is I'll try to point you to somebody else, but at least I know who is currently active working on some of these things.

The other thing that I will say is, you know, we have people in the community who are actively trying to implement bits of IETF protocol. We have hackathons at the beginning of most IETF meetings now. And so if you want people to work on these kinds of things, because you've got, you know, open source projects that you want to sponsor and so on, great place to recruit, are next meeting is in [inaudible], but it's, you know, like two weeks so maybe you can't make it there easily.

But that's a ground to find people who could be interested in actually doing the implementation of stuff if you need it.

UNKNOWN SPEAKER: Very helpful. Thank you. So we've got two more speakers, both in the category of collaborations. Hopefully people have some ideas on non-existing collaborations that we can explore. For the next up on our docket we've got Lars Stephan from ECHO. And I believe Lars, you have a couple of slides. Don, are you able to pull them up?

So while he works on Lars's slides, I guess we'll, let's go ahead and go to Jordon instead. Jordon is going to talk to us about the efforts of the DNA. And also, after that, maybe better speak to how we can collaborate with the DNA.

JORDON: Yeah, actually I think that's how I would like to spend most of my time. There has been some overlap, I think, both in terms of membership because the domain name association. It's the trade group. It includes a number of registries and registrars, both on the gTLD side as well as some ccTLD participation as well. And the DNA has been keenly invested in the joint topics of universal acceptance as well as universal awareness.

And increasingly, I feel like in my mind and in some other members of the DNA, we view the universal awareness issue as actually being nearly as substantial user issues as universal acceptance, because you see these identifiers. We have our little stickers with the star dot star, which is great for getting

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computers to understand that they're, they should be universally usable, but it's just as important, we think, for a user who sees either a URL or just a domain name, or an email address, and understands that they should be interacting with that thing, that identifier, the same way that they do with the identifiers that they're used to working with.

Because if you see something written down and you don't know that you're supposed to type it in to the browser, or you don't know you're supposed to type it into the box within some software, then it doesn't matter that the software has been fixed to allow it to accept that if the user is not capable of putting two and two together.

So we've been doing quite a bit of thinking about how an awareness campaign, which would go, I think, toward influencers in much the same way that the UASG has been thinking about the problem, not necessarily doing like a giant campaign to everyone all over the world, because that's cost prohibitive.

But certainly figuring out who are the right people to influence, to raise the awareness of the problem and think some, I think our chair pointed out that one of the key things to drive universal acceptance would be to get people using these things more, and calling up…

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If a bank gets a call every few hours or every few minutes saying, hey I'm trying to login to your site and it doesn't work because you're not accepting my identifier. Then that will really help push on the motivations of the companies to adopt universal acceptance. So we're thinking about how we can raise the awareness of new gTLDs, IDNs, and EAI email addresses. Is that redundant?

But internationalized email addresses, for the purposes…. Starting with a key influencer, figuring out what a campaign would look like through those influencers to raise awareness. So I think that's certainly one area in which we should look at ways for the DNA and USG to closely collaborate because communication side of the UASG has been, I think, covering similar ground, more focused on universal acceptance and universal awareness, but I think perhaps twining those two programs together may make a lot of sense at problem space.

And then the other thing, the other sort of work stream that the DNA has been focused on in this space, is more on a technical front. And this relates to just putting together solutions to some of the issues that we see. So the start of this work has been with what we call our IDN, UDA technical repository.

There is a code repository where some DNA members have started put together actual examples of how you fix these

problems in code, which is at the end of the day, the language that is going to matter the most. And so, I think once again, figuring out how we can go from maybe Mark's document as a starting point to the next stage that we talked about is, you know, guides on stack exchange and those sorts of discussions.

So at the end of the day, code is a place that we might be able to collaborate as well, and either use the DNA's existing repository as the basis for that, or maybe think about, you know, should it be moved to stack exchange, can DNA, and USG collaborate? Or can that just be an example where the UASG coordinating body, and sort of farms out some of the work to help get done. So certainly, those chunks of code are part of what we're thinking about.

We're thinking about a more broad, sort of like, how do, once again, how do we reach out to the sort of top 50 problems, being very specific about here is, you know, similar to the work that Brent is doing on behalf of the UASG, you know, here is Yahoo's email platform. What do we need to do? Like what are the problems that we need to solve there?

And once we identify those, actually having our members available to contribute technical work, or to create connections, etc. In order to make those solutions happen. Once again, I think that's an area where there is a substantial opportunity for

collaboration with the UASG, and we may want to take some of the tools DNA has done and fold it into the overall UASG effort, and then continue to drive, figure out what parts of the UASG's work make sense to drive through the DNA.

Because like I said, our members are keenly interested in this problem, and here and available to help, and I think the DNA really supports the work I would like to, very closely with UASG to solve these problems.

UNKNOWN SPEAKER: So let me give my sort of my characterization of the various groups. I sort of feel as though the UASG is building this very methodical machine to go out there and do a huge amount of work in a way that sort of addresses the scope, in a way that we're going to need to monitor, we're going to need to measure the stuff, we're going to need to know exactly what to say, should we do the technical research to go out there and give them actionable tools?

And the DNA has done an admirable job, I'm not going to say in contrast, but it's a different approach of sort of creating a gorilla marketing tactic and initiative around doing things now. Both are needed, and I want to thank you and say I respect the work you guys are doing as well.

It does make sense for us to, I believe, if not more tightly integrate the organizations and certainly find tangible points of collaboration where we can work toward shared goals together. I guess my big question to you is, what's the best way to explore that? What is, what are the points of collaboration?

JORDON: Sure. Yeah, so I think the two that stand out, obviously, are on the communications campaign, how we line up the universal acceptance message that's already being put together with the universal awareness messaging that the DNA is working on, and then once again, take advantage of the opportunity for the DNA to do some…

I think the way I would characterize it is probably similar to what you said, which is that, you know, the DNA is sort of doing stuff now and that's because it's an industry group, and we're not constrained by ICANN, you know, the need for inclusiveness, which is great, but sometimes also slows us down a little bit in terms of making sure that we have the right conversations, and we have a meeting here at ICANN, and that we sort of time things around these public events.

Whereas the DNA can go and sort of say, hey, we're just going to get stuff done for a while. So figuring out where in that communications campaign we can leverage that ability to sort

of move more quickly might be helpful. And so that's probably the UASG, like you said, being methodical and coalescing around like what that strategy should look like, and then unleashing maybe the DNA in places to make that happen.

So I would say that's one place and just sort of how do we coordinate on that communication campaign, in a way that takes advantage of the strengths of both organizations? And then on the technical side, I think it really just is, I think we have a stack that we're working on, right? We have Mark's document at the very top, we have this intermediate layer that we don't understand how it's going to work at all, and I think that's probably a really good place for us to be chatting, how do we define that.

And then at the very bottom right now, we have the actual code [inaudible], and that's the DNA is I think, the only place that exists right now. And so probably working together, figure out what that middle looks like is a good next step as well.

CHRISTIAN DAWSON: What I'd like to do is establish a takeaway from this conversation, because… And I would like to volunteer to be one of the people that discusses how to more tightly integrate the work of the DNA and the UASG. I'd like other volunteers for being part of that conversation. Anybody in the room who

wants to. It can be any stakeholder, even the big conversation ought to have the right help guide, how this collaboration goes.

I've got some good thoughts and ideas of how we can collaborate. I've also got some concerns to bring on how we shouldn't collaborate.   I do have some concerns around conflating universal acceptance and universal awareness within this organization. I want to make sure that's, when we sit down and have that conversation, get to be able to spend more time on that then we can here.

So can we see…? Anybody want to raise their hand and say they also want to be part of the UASG DNA collaboration discussion?

UNKNOWN SPEAKER: I by default will be, because I'm also vice chair of the domain name association. So there is that. So my hand almost can't count, because we're looking for more than just the same voices doing this. And I would especially like to call for members of the international community to be helping us, because we have a very, the DNA would has very light ccTLD involvement right now.

And that seems, you know, as I listen to Tony especially, I'm hearing some Latin American perspectives that I'm finding very interesting and are driving my thought process.   So extra perspectives are really essential and great.

CHRISTIAN DAWSON: I saw Mark's hand, and I saw Don's hand. Okay. Gwen as well. Wants to get into that conversation, which is fantastic. Let's set a date on this to have an email collaboration, a Google Doodle in two weeks' time. Don could you help us coordinate that, to try and find a call within a month? To drive forward the conversation. Within 30 days. A call within 30 days.

I just want the call within 30 days. Maybe we ought to be more aggressive? There is just a lot going on, including IGF.

Okay. Then let's move onto Lars, and let's hear about what Echo is doing.

LARS STEPHAN: Thank you Christian. And yeah, you keep skip this folio, and can we resize it. Anyhow okay. Just for the people who are not aware who is Echo. We are the association of the Internet industry. And as you can see on the next folio, we've been founded 20 years ago, and we are counting more than 850 members right now from more than 60 countries. And when you count in all registries, registrars, resellers, and hosting companies, we present more than 120 companies from the domain name industry.

Just to give you a brief idea who is in that group. I can see the transformation to PDF just crashed our logo and the logo of Afilias, but just to give you a brief idea, who is member at Echo, and I guess some of the people in this room are not aware that they're already a member of Echo and represented on the European side of the Internet industry as well.

Okay, this is the commercial part. Let's come to the activities that we are going to do regarding universal acceptance. Yes, we do outreach so far. So triggered by some registries who are our members, especially from dot [inaudible], dot Berlin, and dot [inaudible], they contacted us to help them to get in touch with some companies who are not accepting new gTLDs for registration.

Some of them are the hotel portal HRS dot com for example, which is quite big in Germany and in Europe. And they fix this issue so far. Some of them, Skype for example, we contacted, they didn't react anyhow. But we are working on this. We are in regular exchange with those members who are giving us the info and who are reaching out to those companies and try to fix the problem.

The next thing that we are doing is try to, yes of course.

DON HOLLANDER: So are you keeping track of who you are contacting and how you are contacting them?

LARS STEPHAN: Yes we do.

DON HOLLANDER: Is that through your own internal help desk call center software, or something that other people can share in as well?

LARS STEPHAN: I do this personally.

DON HOLLANDER: So you've got a spreadsheet maybe?

LARS STEPHAN: We have a spreadsheet.

DON HOLLANDER: Or just Post-It notes on the wall?

LARS STEPHAN: No. I have a shared document on Google Docs, a list of the companies, contact person, date of last contact, and stuff like that.

DON HOLLANDER: And the results?

LARS STEPHEN: And the results, if there are so, results, yes. The common reaction is that you don't get any reaction, but when you test to register with a new gTLD email address, a few weeks or months later, it just works. But you never get the feedback, okay, we fixed it. Okay. The next thing is we tried to reach out to this target group. Those in the email business, system engineers, developers, security and abuse managers, and also deliverability managers.

We do this through the certified center alliance, which is an organization that is run by Echo and two other associations coming from the online and email marketing branch. It is a whitelisting program, and it is also a vital community when it comes to emailing and bulk mailing. So we have two events on the agenda.

The first one is on the next slide, it is next week, and it takes place in Cologne, and it's the meeting of the Echo working group

email. It is a vital community where technicians from one on one [inaudible] host Europe and several other companies are gathering regularly. And there I will have a slot to raise the point of universe acceptance to collect some feedback.

If they are aware of this topic, which feedback they can give. And this is something I would like to contribute to Mark's document, if there is some valuable feedback I can collect. So, yes?

DON HOLLANDER: So, sorry to interrupt, but this is very interesting. So EAI, I think Brent is very keen to find out who are writing their own software, I saw that you had [inaudible] on your list. So what are they doing with respect to EAI? And how can we get them to engage and be part of the EAI mailing list? So that's the first thing.

Second is, will they have remote participation? So people can watch or participate remotely, at least will they record presentations?

LARS STEPHAN: Not yet. Because this is a quite closed working group, because they like to have some confidential exchange among the companies, and some issues that they want to see in public that they discussed it in that way. But whenever there is some

valuable feedback, I will share it, of course. And when it comes to your point, I guess, the next event is much more interesting.

It is the customer… The certified centers alliance customer summit, which will take place on 21st of April, also in Cologne, the attendees, it's expected to be around 150. Covers more than 80% of the ESPs in Germany and more of 50 percent of the ISPs in Germany, and also some international companies who are involved in this project, like [inaudible].

And this event will also be used to address universal acceptance through this community. We will arrange a workshop on this. Also based on the feedback we get next week from the same community. And I already also talked to ICANN Europe to contribute and sponsor this event.

And whenever you have feedback or some very well input, I could address to this community, feel free to contact me and you can contact me via Lars at social.

UNKNOWN SPEAKER: Thank you Lars very much. And thank you for your outreach. You've done a tremendous job. Your organization has, in the time that they've committed to you personally doing a tremendous amount of outreach, is very much appreciated. I see good points of collaboration around, in addition to the

things that you are already just doing, and it's wonderful for the community, around helping us figure out how to more methodically do individual reach out, even if it is just a spreadsheet.

And that's something that we might want to take as an aside, and figure out if we can better create a methodology for tracking touchpoints. Don, you have some ideas on this?

DON HOLLANDER: So Doughnuts do a similar thing. I think, the way you explained it, was you responded to complaints from your members. And Doughnuts is doing a more proactive approach where they're taking the top 100 or top 500 websites and they're trying to register with a dot email address, and seeing what the results are.

And they have a spreadsheet where they're tracking their experiences. Did it work? Did it not work? Did they reach out? And did they ever get a response? So one of the things that we're looking to do is to expand the work that Doughnuts has been doing, which is just working on dot email, to doing an evaluation of probably six, or seven, or eight different categories, so IDNs, or IDNs at the second level, long names, and so forth.

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So, and the plan, the question is, should we make that a public document, a shared doc spreadsheet, a database or something like that? I don't know the answer. That may come up at the end of the day when we say, do we move forward?

UNKNOWN SPEAKER; I'd like to suggest that the action is less… I started to create an action unilaterally that I would have suggest that we figure out how, when we will combine contact set that we would be adding to and pulling from. And then I realized the sensitivity of contact information and relationships, and the fact that we need to…

Possibly, I would like to suggest an action that we come up with a paradigm that we will use for some sort of a shared repository for contact. We do that by mid-January. That we have the idea that maybe through, we have to go through Lars for the Eco-based ones. But for the methodology that we're going to follow, so that we respect the privacy of individuals, but also leverage the group effort. Don?

DON HOLLANDER: So let me tell you one of the things that we developed earlier this year for the ICANN help desk, is we created a knowledge base on, for ICANN… So what… A knowledge base for the ICANN help desk, and it addressed, it provided a list of contact

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points for the known browser communities. So somebody complains to ICANN that their domain name doesn't resolve in a browser, ICANN now has a list of how to reach out to each of the 10 or so browser developers.

And that got shared to the list some months ago. But we can put that, in fact, it may actually already be on the Wiki.

UNKNOWN SPEAKER: I think it is.

DON HOLLANDER: So that sort of thing, would that be useful to expand to other platforms?

UNKNOWN SPEAKER: I think that chances are that it is. We probably should have a specific thread. We should loop in Lars and Elaine in having that conversation.

UNKNOWN SPEAKER: I'm volunteering Elaine without her being here.

UNKNOWN SPEAKER: Best type, yes that's, she's down.

CHRISTIAN DAWSON: Great. Sorry I just coughed in the microphone. That's awful. So, in the interest of full disclosure, I am going to try and close out this section relatively quickly. I have another workshop I am running on abuse reporting that started at one. I'm having somebody else take the first 15 minutes for me, but I have to leave and have Rich take over the second half of the meeting.

I will return for takeaways at the end of the meeting. The last thing that we want to do on this collaboration section, is to ask anybody else in the room if they have any other organizations that we should be collaborating with that we haven't yet mentioned. Don?

DON HOLLANDER: It seems to me that [MOG] is somebody, really…

CHRISTIAN DAWSON: I was supposed to talk about [MOG]. That's my fault. Yeah, okay, thank you. Yes, I was supposed to talk about [MOG]. In fact we invited [MOG] to come and collaborate, however [MOG] is currently in session in Atlanta, Georgia. And it wasn't possible for leaders who are working on this issue to be in two places at once.

Therefore, we couldn't get them here at the table. But I am a big proponent on working with [MOG] on this issues, to the point where I've actually been pressing within the steering group, for the USAG to become an official member of [MOG], paid member of [MOG], in order to like make sure that their collaboration is there in dealing with this very important issue.

So [MOG] is the messaging malware and mobile anti-abuse working group. It's M-3-A-A-W-G. And they deal with spam issues, phishing, and malware. They have a great interest in this subject, mostly in that they want the proliferation of this issue, these domains especially the E-A-I related implementation, to not create major abuse issues.

And it's with that respect that I think we need to maintain a really close communication with them, because it would be very easy for that community to take a look at what we are doing, and either cast it in a negative light, or point out things that we have not thought of, that show us we're, that we could potentially be behaving in an irresponsible way.

So my idea of actually becoming a member was to spend a little bit of money to get them to come into our community and say, okay this is the good and safe way to go about this. So that's the way I would actually prefer to collaborate with [MOG]. Thoughts.

RICH MERDINGER: This is Rich. It seems there is something about it, and I wish I could put it into better words. It seems odd to have a group that is so, has such a complimentary vision and mission, where we are trying to accomplish something, we want to do it within a vision that they have for the secure environment that they want to see created, and have to pay to get your words in.

I don't understand why we would have to be a member in order to be shoulder to shoulder aligned.

ANDREW SULLIVAN: This is Andrew. So I have some sympathy for your question. At the same time, you know, [MOG] is an industry consortium, and they talk among themselves on one list, and they talk in public on a different list. And if you want access to the first list, you've got to join. And that's the place where the…

I mean, okay. So let me be blunt because I'm no good at being subtle. There are 10 email providers in the world, that you need to convince to do EAI. And if you don't convince those people, it doesn't matter what you do anywhere else. You're doomed. So you've got to convince those 10.

And they're all at [MOG], so join there.

CHRISTIAN DAWSON:	I completely agree. They're the people that you need to get. They're at [MOG], hearing about how these are abuse issues, potential abuse issues. And so what I'm suggesting is, we go there as an outreach tactic, and collaborate with this group. Get in front of those individuals that we need to convince, and the easiest way to convince somebody is something in my experience, is to sit down and to collaborate with them on getting towards your solution.

That's what we'll be viewing there. And that's sort of is pay to play, but that's understandable. It's an interesting consortium that needs money to survive.

UNKNOWN SPEAKER:	Yeah, so I guess the other thing that I would say is that if you don't convince those 10, you're not going anywhere, right? They are, they're the people who send the bulk of the email. And every year that gets stronger. I was the co-chair of the, of one of the mail working groups at the IDF, and you know, the samples that I saw were devastating for people who aren't involved in that sort of thing.

You know, the other thing that I would say is that the people who are talking about anti-abuse, see this entirely through the

lens of abuse. And so you need to get your, you need to get the point about usability in there, because from the point of view of an anti-abuse person, the real problem is abuse, and usability is like you know, third or fourth in the thing, because what they really want to do is prevent the abuse.

And I have like a lot of sympathy with the reservation, but I think as a practical matter, if you don't get in that room, they're not going to hear you.

UNKNOWN SPEAKER: I appreciate that and if I could please. It's just that we are in that room. Go Daddy is in that room. I would like to believe there are other members of [MOG] in this room that are aligned. Why are we, as an organization, becoming a redundant membership to [MOG] instead of leveraging the community and business spaces that we have today to get our message across as members?

Maybe we have to, I just one voice has a reservation about having to do that, but that's just me.

UNKNOWN SPEAKER: It's not a have to do that, I mean, honestly, we can push forward the conversation, but the easiest way to do that is to come in and stake our claim on the intentions to work on this collaboratively, maybe even set up a working group in order to

achieve that goal. I mean, these are good people to work with. I've been to a number of [MOGs] in the past and worked on a couple of other working groups.

And they invited me to do that as a not a paid member. And so there is a certain amount that we can accomplish there. But it's such an important tool in our arsenal, that my recommendation would be to make the ultimately PR gesture of dedicating a few resources. And I don't think that that's something that we need to be above in general.

I mean, the fact of the matter is that within the ISTAR's community, ICANN is really the only one that's self-funded through its own resources. Everyone else, they tend to go to all sorts of, some of them end up being an organization of, that collects resources from a number of individuals.

UNKNOWN SPEAKER: I'm not sure that I agree with that. The RIRs mostly support themselves through their operating money. And part of the reason the IETF gets the funding it does from ISOC is because there are things that we do that aren't directly, you know, that are beyond the way we work. I mean, traditionally the way the IETF paid for itself was meeting fees, which was why our meetings were so expensive.

So there… But I think, there is a difference in that these aren't so much consortia whereas you know, [MOG] is totally an industry consortium. That's what it is about.

UNKNOWN SPEAKER: Good clarification. I was speaking to things like meeting fees, where you were collecting money in order to have these conversations in the first place, isn't something that we should, you know, by default shy away. Very good point. Thanks for the clarification.

Anyway, I don't necessarily need to make an action item to join [MOG].

UNKNOWN SPEAKER: Pardon me, I have the keyboard, but I can still type things on my agenda. So if you would like it to be, the group should just agree with this.

CHRISTIAN DAWSON: Well, I haven't even established what costs are for the group, and so, I haven't given the group tools enough to make that decision.

Likely good, yeah. Why don't I contact them today and verify that we can do a $1,000 membership. If we are able to, I would

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like to put it to the room. Would this group find…? Don, you have hesitation about putting it to the group.

DON HOLLANDER: I'm just aware that there was no provision in the budget. Doesn't mean that you can't, I'm just saying that there was no provision in the budget for it, toward membership in outside organizations.

CHRISTIAN DAWSON: There wasn't also a prevention in the budget for legal fees that we've already approved for the…

DON HOLLANDER: Those haven't gone through either, for the logo.

CHRISTIAN DAWSON: Okay. Then there are things that we might need to figure out in the budget, but I want authorization from the community to explore it.

UNKNOWN SPEAKER: Sorry, I just have a suggestion, and forgive me because I'm obviously coming in late to a conversation that's been going on for some time. So if I'm saying things that have already been

done, sorry about that. But I think that the… I don't hear any disagreement about the fundamental idea that it's really good to engage with people who are looking at IDNs. I think as Andrew mentioned, you know, that viewing IDNs as a security risk, and as an abuse tool, engage early and often, if possible leverage existing members and maybe get in front of them at some point.

I mean, one of the things that, from the ccTLD community that tends to work very well is getting people along to sort of just do, and workshops to do presentations, start the process of outreach and getting to know each other. Usually the first meeting is really painful because you standup, describe your work, and then get shouted down by everybody in the room because you haven't thought about anything.

But you then start the relationship rolling. And that's really, I think, what we're all trying to get to.

CHRISTIAN DAWSON: I couldn't agree more. I do want to put an actual motion to the room and find out if there is anybody who is against me taking a point of action, to explore whether we can get a low level membership and get it paid for through the budget to join [MOG].

Okay, with no active objection to that, we'll take that as an action item, and I will spend, in the next two weeks, I will explore it, and bring it to the executive committee.

UNKNOWN SPEAKER: I'm not speaking to object at all. I think it's a good idea. When you explore this, you might ask them what the required person will be to be to become a member. Because if it's ICANN, ICANN is pretty [skitty] about becoming a member of any organization. And as a working group, we do not have a registered status. We're not a company, we're not… Exactly.

We're not incorporated in any way. They may have, usually when you join an association, they want to see your incorporation certificate, or numbers, or contract, whatever it is. You might just ask them that, in case that throws them off.

CHRISTIAN DAWSON: Okay. Look into it. I'll reach out to Jerry who is the head of the, of [MOG] in the next few days.

UNKNOWN SPEAKER: Okay. Just for the quote/unquote record, I've established that as for [MOG] establish the relationship, including membership. [CROSSTALK] …allow us to be a member, we still want to have a

relation, excuse me, for the things Tony mentioned, we still want to have the relationship.

CHRISTIAN DAWSON: Perfect. Before I run off to my other event and turn the mic over to Rich, is there any other organization that somebody wants to bring to our attention to discuss?

DON HOLLANDER: ISOC.

CHRISTIAN DAWSON: What do we want to do with ISOC?

DON HOLLANDER: We want to work with them to reach out to their local communities.

CHRISTIAN DAWSON: Fantastic. Who do we communicate and collaborate with?

DON HOLLANDER: Kathy Brown.

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CHRISTIAN DAWSON: Just start right at the top. Great, let's do it. Who? Don. Don contacts Kathy. In what timeframe. This month. Awesome. And I think that concludes content and collaboration. And I thank you guys for your time. I turn the mic and the leadership of the rest of the workshop over to Rich, and we'll return for takeaways at the end. Thanks a lot.

RICH MERDINGER: Thank you Christian. You set a bar pretty high, so I'll apologize for the afternoon now. But at any rate, is Edmon about? I believe he was next on the agenda.

DON HOLLANDER: Actually, we've swapped Edmon for Brent. Brent is going to moderate his own session.

RICH MERDINGER: Okay, thank you very much. It was in my notes. I remember that now. Did Brent know that, okay.

So to that end, regarding email address internationalization, Brent London with Google.

BRENT LONDON: Hello everyone. This was an excellent… Christian's comments are very relevant to what I'm going to talk about. Screen sharing works here.

So it was a good segue.

Apologies to everybody who is dialed in remotely, we had some technical issues that seem to be resolved. So I'm going to be talking about our efforts in the UASG related to internationalized email addresses.

To recap what we discussed at the last ICANN meeting, we're using email address internationalization as a tool to encourage the adoption of all of the principles that we're talking about in universal acceptance. We're doing that by engaging with mail service providers, major mail service providers.

So Google has been and is continuing to work on this. Microsoft has been and is continuing to work on this. We are engaged in conversations with Apple and Yahoo, although there is no commitment there that these are the beginnings of those discussions. The goal is to build support for EAI.

And the reason why we're doing this, oops, is that email represents a global Internet usability problem. And it happens to be this convenient nexus where fixing one issue fixes a bunch of different problems. So if we can solve email address

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internationalization, in order for a service to support that, they by design, have to support internationalized domain names.

It would be, it's not automatically rolled up into the RFCs, but it would be odd and awkward to go into a system and retrofit it to support email address internationalization, and to leave out internationalized domain names. I don't even know how that might play out.

And then by fixing internationalized domain names, the same kind of roll down effect, roll up effect applies for new gTLDs. It would be odd to go in and support internationalized domain names, and leave out the ASCII gTLDs. And the third goal for focusing on email, is that it helps us break out of the chicken and egg problem that we constantly found ourselves in.

So if we can get major mail service providers, those top 10, or even fewer than those top 10 at [MOG], to support EAI, email address internationalization, all of the sudden we have a user base of over a billion people who have access to this feature, and it creates market pressure for all of the other players who aren't currently supporting new gTLDs to get onboard.

When we go up to that bank CIO, and we say, "You should support this for reasons A, B, and C." We can say, "There is 1.4 billion people who have access to this feature and you're

preventing them from using your system." As opposed to, this is the right thing for the world.

It's a more powerful argument. So before I continue further in this conversation, I want to explain what an internationalized email address is, because it's different then an IDN and probably important to just make sure everybody is level set about that. An email address has two different parts, there is the local part, which is typically to the left of the at symbol, and then there is the domain name on the right.

An internationalized email address, it occurs when the part to the left of the at symbol, the local part, contains non-ASCII characters. At least in a left to right script. So this second, or this third right row here, also happens to be an internationalized email address, even though the domain name itself is an ASCII domain name.

Important to note, this last example, where the local part is ASCII and you just have an IDN, that's just a regular IDN, those are just regular internationalized domain name standards. That's not an internationalized email address. What's that?

UNKNOWN SPEAKER: Sort of. No, we don't need to get into the details, but sort of.

BRENT LONDON: Like, basically you don't have to implement RFCs, 6530, 31, 32…

UNKNOWN SPEAKER: Well it depends on what you do with the domains names. [CROSSTALK]

BRENT LONDON: …treat it like a regular domain name, like the browser is doing, you convert it to Punycode. If you support IDNs, this is fine. So, today, between service providers that support these EIA RFCs, things generally actually do work. So I, for this presentation, I did a demo, and I did this using a handful of different systems.

I used Horde, which is an open source groupware client, groupware service that supports EIA running on top of post fix 3.0, which is a SMTP server that supports EIA. This is sent to and from Gmail, and the TH NIC instance of [inaudible]. So I'm going to walk this through what this actually looks like when it works and when it doesn't work.

I did it as a series of screenshots because demos seem to go poorly, and it would just be a little more predictable here. So we were to log into Horde, and compose a new message. I'm just going to send it to a regular Gmail address, hello world, and fire that off, great.

Switch to my Gmail address, and sure enough, the message arrives. And you can see here, open it up, the sender has an internationalized local part. There is non-ASCII characters there. Can reply to this message and hit send, and go back to Horde. And refresh, and sure enough, the message arrives.

This is not all that surprising. If this functionality didn't work so well, the RFCs probably would have had some issues. Similarly, we can reply, and I highlight it in yellow there, adding another internationalized email address. So now we have two recipients, one is an ASCII email address, one is an internationalized one, hit send, it's coming from an EAI address.

Switch over to Kore mail inbox and that works as expected. So here we have the message that came in. Also, it's interesting to note here. In Core mail's implementation, you can see they have Punycode the domain name despite the fact that they fully support the EIA standards, and that's not a great user experience, but it's an allowable way to operate.

This doesn't actually change the way domain names operate on the wire. They're still being sent as encoded as, ASCII encoded forms of Unicode. So is everybody with me so far? Yes, where? What do you want to see? That's what this is. This is the message received at an EAI mailbox. And we can reply back to this.

So here is reply all, going to hit send, jump back to Gmail, and here is the whole chain, between three different mail service providers that support EAI. Just kind of works. Were it doesn't work so well, is when you involve a mail service provider that does not support EAI.

So, if we go to Horde in our internationalized address, or internationalized mailbox, compose a message to, this happens to be a domain testing service that doesn't support EAI, hit send. The message will not get sent properly. Hit refresh. There will be a bounce back. The mail is returned as undeliverable. And here is the message that you get in response, and I want to focus on one part of this message in particular, just the error message down at the bottom.

SMTP UTF-8 is required, was not offered by the host. Basically Horde talked to post fix, post fix tried to send this message to the intended recipient, the recipient did not support the mail standards Horde was trying to use, and it rejected it. So Horde reported back to the original mailbox. No, this is not going to work.

This here is part of the problem, why EAI is particularly tough. So in the domain name world, when you have an internationalized domain name, in the mostly worse-case

scenario, since it is being communicated on the wire using ASCII, they systems involved can generally fall back to ASCII.

So if you send the message using a service that doesn't know what Punycode is and doesn't know to convert this from ASCII to Unicode, you'll just see this ugly XN dash, dash form. But the message will likely get from point A to point B.

Not so in the email address world. There is no ASCII compatible encoding for the local part of an email address. In fact, it's specifically states in the RFC that along the way, services that are touching this mail message in transit, are not supposed to change anything about the local part.

And the RFC goes into some explanation about why that's actually the case. There is large, historical president about the fact that the part to the left of the email address is totally up to the destination to handle. All the rules related to it, what it actually means, shouldn't be touched along the way because you might cause the message to get misdirected. I don't have a strong opinion about whether that's good or bad, but it happens to be the way it currently is, which makes actually deploying this a little bit different then IDNs. Andrew, yes.

ANDREW SULLIVAN: As a very brief thing. They actually tried, right? The working group actually tried it the other way first. There was a downgrade mechanism, and it didn't work. It was a total disaster. So, the first version of EAI was an experimental version and it didn't work.

BRANDON LONDON: Do you have like history about that? I wasn't a part of this one that was going on.

ANDREW SULLIVAN: So what happened was, you tried to do the downgrade, if the other, and didn't do it. What you said was, oh, you had to have a downgrade address. So everybody who had an internationalized email address also had to have their downgrade address, and they needed to know what it was. And the consequences of this, of course, was that you had two email addresses, and if you go to the mailing list, for instance, and one of the people at the other end of a mailing list system had a downgrade address, and you didn't know what it was, then when you did the remailing, half of it bounced and half of it didn't, and the whole thing just created bounce chains.

So part of the problem is, email is designed on purpose to be asynchronous, right? What you do is you hand it on, and then

you hand it on, and you hand it on to somebody else. And since there is no way all the way along the chain, to be sure that everybody is going to be implementing the same extensions, you don't know at what point the whole thing has to, you know, could fall back. And so what tended to happen was, you would split conversations, and some people would end up with the internationalized stuff, and some people would end up with the compatibility thing.

And you wouldn't have something that fit together. This got worse when you had mailing lists, because they do remailing. It got bad when you had a large number of participants in a chain. So if you had 10 or 15 people in a cc, right? You'd have all kinds of weird things that would happen, and different people would get different kinds of messages back saying, oh I did the downgrade.

You need to be able to communicate that you were doing the downgrade so that the other side knew what to do in the event that, you know, because there is a success message it has to go back through as well. So it needs to know how it treats that success, because you need to know, oh I've done a downgrade in this case or not.

And so all of that turned out to be really, really hard to coordinate correctly. And the answer was, this doesn't work

properly. It doesn't produce anything that anybody could use anyway, so we're going to give up. The reasoning behind that was that the idea in the case of IDNS, the problem is that you know a lot of the time with an IDN, you don't know who the people are at the other end. Right?

Because it's a sort of side of the bus sort of situation. The idea with email was most of the time, when you're doing email exchanges, you've already talked to somebody, right? So they tend not to be blind communications because people treat those as spam, so they don't work anyway. So what you've got…

The idea then is that you already know that you're going to use this kind of feature, and if somebody presents you with a business card, and it has got this internationalized domain name, or internationalized email address on it, and it doesn't work for you in the first place, you have some other way to do it. You know, the idea was that there is going to be a social period of time where people have to have two email addresses.

The problem with that, of course, is that the incentive to upgrade is low, so that's really where the problem is here. But the idea was that, we tried to do it, we tried to emulate that in the protocol and in the experimental version, and it just didn't work very well. And so that's the reason it got dropped.

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UNKNOWN SPEAKER: Because I wanted to ask this question of you earlier, and I am adjacent to the IETF. We have people that attended from Go Daddy. So what do we do? If implementation of the protocol and the wire level if you will, is what you're all about, is it upon the rest of the community to come up with a solution, at which point, the implementation details get worked out through the IETF?

BRENT LONDON: So one of the things that I would say is that this is an example of, it was very difficult to get adequate review in that working group, because so few people participating and actually implementing the experiment and so on. This is a constant problem in the IETF. That you know, you get people who show up and they're vendors and they're standardization people, and we don't have enough people who are just implementing stuff and trying it out and saying, no, no, this sucks man, we're not doing that.

And that was, I mean it was a good thing in that particular working group that we insisted on doing an experimental one first, because everybody knew in advance, probably we're going to break something, and the question was only what we broke.

And in that particular case what we broke was downgrade, which was, you know, really didn't work. So, part of the answer to that is to the extent that you're working for organizations that can send people and who can be active, you don't have to go to meetings, for instance, you can just be on the mailing lists. And all of the decisions happen actually on the mailing list.

So real contributions can come that way. But the other thing that I would say is there is a lot of stuff where the IETF does, where it says, okay, this is as good as this protocol can be, and now you have a really hard implementation problem. I'm sorry about that, but that is sometimes part of the answer.

So what it means in this case, is that yeah, there are real serious problems about how you get the incentives aligned correctly here. And I think the incentive in this case is, well if you can get those, you know, I agree actually, that two or three of the top 10, right? If you've got two or three of them, and they started using those local parts that way, you know, frankly if Gmail went to Bank of America and said, "No, no. We're doing these local parts, man, so you better be able to use them."

That would be a really big move for the Bank of America because they wouldn't have any choice. You know, that's what their customers are going to have. And they don't have enough clout.

Doesn't matter how big a bank they are, they don't have enough clout to tell Gmail no. So that's one of the things that happens.

But of course, from the point of Google, you can't just say, well we're going to start breaking things on all of these other websites, because you know, your support costs are going to go up. And that's figuring out how that support cost alignment can happen is something the IETF can't help with.

ANDREW SULLIVAN: Thank you and that was great background. And the fact that you are here in this meeting is a great step forward and I appreciate it, so thank you.

BRENT LONDON: So as we just heard, the local parts are different than domain names when it comes to handling internationalized characters. And it turns out it's actually more involved than just saying, implement this RFC. There are decisions that the implementers have to make, and there is not a lot of precedent for how to do it.

So I'm going to talk about two gaps and give some examples of how this comes up and where it turns into a problem. One of them is normalization and the other is security. And I'll do just a few illustrations. And some of you may be familiar with these cases in the context of domain names, where even if there are

multiple competing standards, there are standards on how to do this, but in the case where a local part is totally the purview of the recipient, or the mail service operating that mailbox, it gets a lot messier. There are no standards.

So case one is the sharp S in German. So in written language, the sharp S is the same thing as writing two Ss in a row. So, to a human, actually. So this raises the question, is this the same email address? The RFC says no. Humans might assume yes, so that means that whoever is operating this mailbox could choose to map the two to be together. They also could opt not to do that.

So if you're on an e-commerce site, if you're on Amazon dot com, and you're implementing support for mail accounts, what should you do? Should you map these together as one? Should they be separate? This type of problem doesn't occur with ASCII local parts, just because there are so many fewer characters, and these types of odd, they're not odd, but these types of cases don't exist. But just those Latin characters.

Second case, with regard to normalization is o with an umlaut. So let's say you have the name Zoe at domain. You can write this using a couple of different patterns, or a couple of different combinations of code point. One is Z plus the O, the umlaut, plus E.

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Second is you could do Z plus O plus umlaut plus E. And it gets rendered exactly the same way. Like the actual pixels that show up in the screen or identical. So if you're sending an email to Zoe at domain, which mailbox is it actually going to? And if you're operating the domain mail service, you have to think about this problem, otherwise it could turn into a security risk, or it could just turn into messages getting dropped.

The message arrives and it's being composed in a particular way, and it's not normalized the way you expected it. It might just not arrive. What's that?

UNKNOWN SPEAKER: This one is a should. You should use NFC for this, which would solve that problem.

BRENT LONDON: Yes. And actually, I think I talk about this right now. There are standards that exist for how to normalize. It's not like we need to reinvent the wheel. So, the Unicode consortium has detailed recommendations about what you should do. It's not required by the RFCs and so if you're just going and looking up RFCs and figuring out how to implement this. You might miss it, or you could use the wrong normalization form too.

UNKNOWN SPEAKER: Yeah, well so be careful, because RFCs have this weird language, should doesn't mean what it means in English. Should means you better have a pretty good reason not to. So what should really means is, because the guy at the other end might not do this, you need to be aware that there is this problem.

But if you're not doing it, probably stuff will break. That's what should means in IETF speak. Which is different from what it means in English, right?

UNKNOWN SPEAKER: Does the RFC recommend a particular normalization…

UNKNOWN SPEAKER: Yeah, it says, you should use NFC, but for matching NFKC might be better, because NFKC… So sorry for the jargon folks. But a NFC is a normalization form a NFKC is a normalization form. They don't produce exactly the same results. KC tends to match more often. So what it says is that for the purposes of matching, probably you want to use KC. But I agree with you that this is a really tricky hole.

BRANDON LONDON: I guess I should rephrase this slide then. It talks about what you should do, the capital should. The last case I want to explain is

script direction, and how script direction can get messy pretty quickly. So let's say, so if you have an email address that has both a left to right and right to left component, things get kind of confusing.

So in this example, which side is the domain name and which side is the local part. It's kind of unclear, actually, I don't know and I wrote this out there. So this open security attack vector is to. So let's say you have customer dot care, and you have this domain, and you compose an email address that one would read like this.

So if you have a textbox and you start typing this, the first character that you type is from a left to right script, so assuming that this textbox is using the Unicode bidirectional algorithm, it's going to arrange it as if the entire string is left to right.

Now, let's swap the two. So we have the Arabic string in the local part, and the ASCII string in the domain. And so you would read the address with the Arabic part first. Now when we start to type this, the first letter that we type is from a right to left script, and so the textbox now treats that entirely as right to left. And now you have two completely different email addresses rendered identically.

I think it's unlikely that in 2015 we're going to see too many attacks that use this vector, but if email address

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internationalization becomes popular, this is a pretty big problem that we need to figure out how to resolve. So, on the security front, my recommendation is that we engage with [MOG]. And I did this, this was my recommendation before Christian started talking about this, but the reality is that [MOG] actually working on best practices for how to handle this.

And so, they have the expertise there, they're already doing this. We should be engaging with them, but not being redundant. And importantly, this blast problem, security issues, doesn't block testing. It probably is something we should strongly consider before large scale rollouts of availability, like perhaps it would be wise for major mail service providers not to issue email addresses with both left to right and right to left scripts until we have this worked out, or maybe they should never do that.

But for testing purposes, this doesn't actually create significant problems. There are issues that get in the way that we need to be aware of as we're moving forward. So the plan, as described previously and kind of alluded to throughout this presentation is, engaging with mail service providers, coordinating with [MOG] to produce redundancies or eliminate them entirely, let [MOG] handle the security abuse issues. Address the primary technical barriers where those exist. Test and figure out what problems we need to solve.

After we offer EAI to a controlled user base and can get feedback about what works well and what doesn't work well, we can then figure out, are there RFC gaps? Are there best practices that we need to define? What do we need to do next? And move progressively towards being able to offer this to a large user base, and incentivize to companies to then starting EAI, IDNs, and new gTLDs.

That's the end of my presentation, but we can talk about it too.

DON HOLLANDER: Can you just keep the last slide up?

BRENT LONDON: Yes.

DON HOLLANDER: What are the dates associated with each of those dots?

BRENT LONDON: There are no dates associated with each of those dots. Yeah, the green one has a very clearly defined date.

The reality is, I didn't ignore the fact that there were no dates, it's that I'm reluctant to put dates on something where I really don't, like I'm having conversations next week with Yahoo and

Apple, and that's going to be a slow process to bring other mail service providers onboard, and the rest of the dots totally hinge on whether those companies are engaged, and if they are great.

There will be different degrees of enthusiasm if so. And if not, then we have to figure out what we are going to approach, and that will take more time. Like there is a lot of question marks, and I didn't want to put bad data on there. So I just omitted it entirely.

RICH MERDINGER: I would like to make a suggestion then as a coworker, if you will, of yours on USAG. And that is by the time that the coordination committee gets back together on the 14th of January, that maybe an action is the summary report of what has occurred on it. Something that will have a date and a time where there is a deliverable that is intended to drive substance.

BRENT LONDON: Yes. I think that makes a lot of sense, that's very reasonable. Don, what do you think? Don raised his hand as well.

DON HOLLANDER: We heard about these 10 email, do we have a list of them?

BRENT LONDON: So yeah…

DON HOLLANDER: You know, I searched the Internet, I used Bing, like every good person does. And you know, what are the top 10, 15 email, large email software and service providers in the world.

BRENT LONDON: So I don't know if I'm going to get them absolutely right. Google, Microsoft, Yahoo, Apple now, because of the ME service, they didn't use to be in there, Comcast is a very big one. And at the time we were talking about this, it was Comcast and Time Warner together because that was still a live option, and at that point, they were way up high, I think they were fifth.

There is a very large one in China that I forget now. And now I'm running past the end of my Latin, I can't remember the rest of them. But it's not very hard to get the list, right? And anybody who is sort of directly running a large mail server can give you their list locally. And they all contain generally these 10.

Like in the top 20 at any busy mail server, there are 10 of them that always appear, like anywhere in the world.

UNKNOWN SPEAKER: And I mentioned this in other contexts. But it is unclear to me that we should spend time trying to tackle all 10 as opposed to doing this more slowly. But I think if we try to approach 10 mail service providers, we're going to get bogged down with a lot of overhead details, and we'd have a similar result if we can spend more time focusing on two in terms of the actual results of the projects.

UNKNOWN SPEAKER: Yes?

UNKNOWN SPEAKER: You should see that not mail service provider only. In [inaudible], not only service, the mail service providers. And technical operators of ccTLD or gTLD too because, for example, a market of Ukraine and Russia. It's about 50 million users, customers, and the same 50 million users [inaudible]. In all 100 million users, potential users.

But in this market, mail service provider said, "I don't know, I really need IDN email." This is position, this is real position. And only one point of it support, all support you, is administrator of IDN, only one base who support you in this process. I say about to market, about markets Ukraine and Russia. I know the situation.

I think it is a little bit difference with Russia. This is market about 200 million users. Maybe you should have different strategy for different regions.

UNKNOWN SPEAKER: In those markets, who are you recommending that we engage?

UNKNOWN SPEAKER: In [inaudible], administrator of ccTLD and gTLD. IDN ccTLD and gTLD. And the technical operators who manage registry.

UNKNOWN SPEAKER: So this recommendation has come up a couple of times in discussion threads and meetings, which is to engage registry operators. And I'm not sure that registry operators are the target group that need to change their behavior in order for these problems to get resolved.

UNKNOWN SPEAKER: Sorry. I say about specific, about specific situation in two markets. This is very specific, but this is a real situation.

UNKNOWN SPEAKER: What would you have those registry operators do? Like if we approached them and got them in the room here, what would we want them to change?

UNKNOWN SPEAKER: I can propose you this operators.

UNKNOWN SPEAKER: Okay. Let me follow up with you afterwards to better understand the recommendation.

RICH MERDINGER: Is there anything else on EAI?

BRENT LONDON: There is nothing else on EAI from me.

RICH MERDINGER: Okay. I had an action, which was for you to come back to the coordination group, the meeting in January to talk progress you've made along your timeline. And also that you were going to reach out to the Bank of America [laughter], maybe that was not a real action item for you.

BRENT LONDON: No, I don't plan to…

RICH MERDINGER: Okay, I'll delete that one. So closing out EAI. Thank you very much for that. It was very, very informative, good collaboration. Dennis Tam from Verisign is going to start up a discussion about what does it mean to be UA ready for registries and registrars. So it is definitely intended to be a working session type of discussion, but he's got some good context to start with. We'll see if we can be… The video. Yes. We need that one.

DENNIS TAM: Hello. So what we're going to do now is shift gears into outreach, presented what does UA already mean from a registry and registrar standpoint. What we want to do is sort of to, you remember Ashwin's presentation this morning, what UA already means for ICANN. We want to abstract that information, or get an abstract of that experience and sort of have a template for that registries and registrars can define, implement the work.

So we are going to get started, we sorted out the technical problems, and now you can see the presentation on the screen. So Richard and I, we'll be facilitating this conversation, and that's really what this person, it's not a presentation, it's just

guidelines that we want to put it out there and try to build on that and so on.

So what does UA ready mean for registries and registrars? This is the objective of this work stream, and it's really kicking off a work stream that is going to go well into 2016. So basically what we want to do is to build a list of all of the elements that the registries and registrars will have to look at to be UA ready. Now the big question, what does UA ready mean?

Can you go next slide?

Yes, so what does the UA ready mean? So I think we've seen this before, but just to recap and understand. So from a very high level, it means that a system is capable of accepting, validating, storing, and processing and displaying all types of domain name and email addresses regardless of the character set in use, or the length of the top level domain.

And just as a few examples, these are the type of domain names that we're talking about, whether it's an ASCII dot ASCII, IDN dot ASCII. It has [inaudible] domain names included in those, and as well as email addresses, and Brent gave us good examples of what those domain names, email addresses could look like.

UNKNOWN SPEAKER:	So I'd like to ask a question of the group here. As we talk about what UA ready means and how it is defined, is there anybody surprised by this? Do you feel like there is a gaping chasm in the definition? Because it is very high level, and it's directional to a certain extent. But, and I'm not just trying to be interactive, but if people are seeing something that doesn't make sense, I'd like, this is the time to bring it up and chat about it.
DENNIS TAM:	Now. So going more specifically to registries and registrars. So we are, we registrars offer the domain names and the registries store those. We also, we are companies. We are businesses like any other, and we have systems that interact with our customers, and also an internal one. So when we talk about in the universal acceptance context, are we talking about everything?
	Are we talking about internal systems? Like email servers, CRM systems, the financial system, databases, customer facing ones. The web applications our website, customer web forms, and also specifically to our business, which is the EPP implementation that we use, contact information that we received from our registrants. What does it mean?
	Do we want to touch everything. Or are we talking just about the customer facing systems? The ones that impact, they have

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the most impact in end users. So I'm going to stop there and get some reaction from the room. I know we have registries, at least one, registrar.

UNKNOWN SPEAKER: Since you and I are both doing this together to a certain extent, I obviously echo your sentiment in that, while we are a specific type of business dealing and we happen to be dealing with the provisioning of domain names, and we rely on email addresses and we have ICANN requirements regarding the validation of contact information, we have a material interest and are impacted by what happens here. We are above all, are companies with customers. And we are on the retail side of things, would like to have as many customers, has a robust set of contact information that we can leverage as well.

So that's really, because a company like Go Daddy, while it is a registrar, is also a hosting provider, it is an email provider, it is, you know, has all kinds of services. So I've looked at it from a holistic perspective, and I've almost thought of EA from the domain name registry, registrar interaction perspective as being a cost of doing business.

And that almost gets into what brand of machine do I have milling the product in the backroom, more so than the customer

facing impact and growth of the business. That has to work, right? Because that's our product.

DENNIS TAM: Absolutely.

JOE WALTON: Joe Walton from Verisign. So I just do want to echo obviously in agreement with what you have, but I think I would expand that to include other third party dependent systems. Whether that's something a registry or registrar has contracted with a third party if you use something like sales force, or something that you're integrating on your backend, then that may have an impact even on what you're doing from a customer frontend.

But I think even more importantly, we need to start looking at dependent systems across the entire ecosystem, so if you look at SLA monitoring that ICANN is doing, or TMCH integration, or other kind of ICANN managed third party systems that have to be compatible with as well. We should look at that.

DENNIS TAM: Absolutely. Thank you Joe. And it goes back to how we are going to prioritize what systems we're going to touch first, and then second, so on and so forth. And also all of these impacts

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that that will create, right? We say okay, so we are going to start and things are going to switch slot here, the workshop.

I think this is a way to characterize the prioritization effort that we'll start with the outside. So the systems dot [inaudible] or customers first, and then going inwards. At a very high level, I'm talking about let's focus first on customer facing system, and have an inventory of those. Of course, if we are talking about, for example, CRM systems, which are the outfacing ones, then what does that mean?

If it's something that I built, maybe it's faster and we can do stuff to have them UA ready. But if there are, like [sales four] or other systems, outside system scan, can I talk with my service provider to do some work on UA? And it goes back to what Ashwin was talking about, the contracts that they have with these service providers.

Can the contract allow those type of changes? Or if they're not allowed, am I willing to go and initiate the conversation because of course, there is going to be a, maybe a financial impact on that end. So as we go through this, and we don't have to decide that, if this is the right approach, but at least at a very high level, it occurred to me that this is a way, a good way to start with, starting out and then going inwards.

But understanding these will have impacts inside and outside the organization. So as we, what we want to do is start this inventory of lists, and Verisign is going to start out with having this inventory of items that we will have to review first. And going into specific, what is that we need to update?

Is it from a registrant point? Is it the contact information that we manage as a registry? And we'll have to look at, okay, so what does, what are the rules [inaudible] that context? Is it the EPP? Is it the RFC? Is it the ICANN guidelines? Etc.

So we need to list, we need to know what it entails in order to become UA ready. If that's the goal, and I think that is the goal. From a registrar standpoint also. What are the elements? What are the systems and then drill down into the elements that a registrar business would have to view and assess the impact of becoming UA ready.

Then moving on to the next big box, which is the registrant registry specific elements. That we are talking about these, the EPPs, the WHOIS display of data that I think soon is going to be replaced by [R dep] so contact data, RFC 5733 just an example, it's not internationalized. So do we need to go back and update that information? Do we need to expand? Do we need to renew our RFC? So on and so forth.

For the good stuff, so timeline. So as a registry involved in universal acceptance for a longtime, we are of course, we are big advocates on getting universal acceptance moving forward. So we want to leave this effort alone with the help of the community, and have by January 2016, a preliminary draft of these guidelines.

Something that we can put forward for comments to a wider audience. So…

UNKNOWN SPEAKER: Would that include the internal and external facing, all of the components of it? Or are you focused on…? You started with a question that was about, are we looking at this holistically as companies, or are we looking at this as an infrastructure envisioning through registries and registrars? How broad are you suggesting this would be?

DENNIS TAM: I think that the premier draft, we'll have include everything, at least at an item, whether or not we choose to, as a group, we choose to go into have a detailed list of what we want to do with that item? Like for example, very internal systems, they don't have any customer impact whatsoever. Do we really want to touch it?

UNKNOWN SPEAKER: I would agree, because I think the intent would be to use this an industry and a business that we, of which we have intimate knowledge. Use this prototypically to develop out what the UA ready description looks like. And that we can create something that can then be applied more generically to other businesses, and it can augment the CIO playbook and things along those lines.

DENNIS TAM: Yes. So going back again to the timeline. So by January, we should have a premier draft, open for comments. I would assume that a month would suffice, the time to get as much, as many comments as possible, which in turn, we will incorporate into the draft and have in the next two months, a final UA ready that we can distribute and share.

Of course, this is going to be a first version that will have many directions, I suppose, I assume. So it's just a first move. But basically, what we intend to get out of this is three things, right? The call to action is… There is something that we can start doing today. So the first one is to create a UA ready section with websites and collaborate with us on our own businesses, right?

So carve out a space on our websites, and have a UA ready section, with definitions of what it is, what entails to be UA ready from a registry registrar standpoint. Of course, the USAG, I suppose, would provide that copy, right, the contents, so that the message is consistent across all entities.

Number two, begin some technical work to assess the UA readiness after those guidelines are posted and agreed upon, to some extent. And get, and last item is to get UA readiness work on 2016 project plans. It doesn't that, right, we are asking to implement, but we're suggesting some work should start in 2016. And that's it.

UNKNOWN SPEAKER: I do have a question. First of all, I'll tell you, just as an endorsement of the effort. I'm leading UA readiness within Go Daddy, as far as getting it on the corporate roadmap, etc. It is almost the highest level. I'm not sure if our CEO… I'm sure he's aware of what we're doing, but my point is I don't meet him in his office every day on the topic.

But what I'm curious about is creating UA ready section on a website in collateral. Being on the retail front, I'm hard, I'm having a hard time envisioning what you mean by that.

DENNIS TAM: I think it's part of the outreach work that we want to do, and maybe spread the concept, what UA ready means. And how we are going to implement it, I don't know yet. But it's part of the outreach effort, and get companies within our industry more engaged and involved, and help spread the message.

UNKNOWN SPEAKER: So from the registry registrar perspective would it be fair to say that it's more like, I might see it on the customer portal that the registry has, that a registrar would see? As opposed to necessarily, or possibly trying to even extrapolate out an open discussion here, the place where our reseller network is logging in and managing thing, that they need to be supportive of this concept as well, and really be inclusive in the industry.

I'm also being very, Tony is not here now, but I'm being very sensitive to the concept that we don't, we know certain things will, certain things will not work. We saw Brent show an example of an email address that was not deliverable. We don't want to put out that the new gTLD program and the IDN program break the Internet, don't work yet. And I just want to be cognizant on how we make it a public call to action with urgency, but in a comfortable safe way.

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DENNIS TAM: Absolutely. I think I like that.

UNKNOWN SPEAKER: Sorry to ask for the microphone again. But I think the most important aspect of this from my perspective is, the fact of your two companies working together on this, and leading by example, because that's a very powerful message of the leaders in your respective industries, or sections of the industry giving this priority, and the same goes for the work that you guys are doing at Google and Microsoft.

And for somebody like, you know, Dennis and I have been working on this area for many years. And actually feeling quite, you know, like when is this all going to happen? Same with Edmon. Right? You know, it's like when is this all going to happen? And really great to hear just the…

And I think that this grouping whether or not there is the production of documents and the production of outputs, just having this grouping and then having a meeting coming up is an incredibly useful thing. So just to commend you on work and say, you know, and say if you can get the message out to your reseller that UA works, that UA is important and something that they should be, that's incredible useful.

RICH MERDINGER: Thank you for the comments. Edmon please.

EDMON CHUNG: I think Don has a question, and I think Andrew wants to speak. But also, on this particular topic, I just want to bring up the idea that was put forward in Horsham, during the meeting then as well. Make sure that, get some input around, is when we identify what we mean by UA readiness, we could also try to encourage registries, for example, registries start off, and having a page for, even if not for public, for registrars to take a look at how ready we are.

You know, this is where we are, this is what the roadmap looks like, and also a part of the material for registrars who then take a look at it. Here is what you need to do to be UA ready as well. So that would allow, you know, and obviously hoping that registrars would also, you know, set up a page or something, some material library or something, that tells their resellers or customers, this is how ready we are.

This is the roadmap. We understand we're not 100%. I think it's fine to accept that nobody is kind of at 100% yet, but this is how ready we are. This is, you know, what we're going to do, and this is what you need to do to prepare down the stream as well. So that, I think, is a very important part of this work. You know, just open it up to others.

UNKNOWN SPEAKER: I think it has been overtaken by Vince.

RICH MERDINGER: Sorry, taking notes and leading is hard, by the way. I want to capture what Edmon was suggesting there.

EDMON CHUNG: A kind of landing page with how the readiness of the registry or the registrar, whether that's complete, public or just to the registrars, I think that's something that would be useful, but the content of that needs to flow from, you know, how we define what UA readiness is for registries and registrars. And I think that part, and going out and saying, hey, do set up this page, and let people know how ready you are. And again, going back to the point is, I guess, some of us need to take the lead in setting up and accepting that we're not 100%, but this is what we're doing.

RICH MERDINGER: And to that, and then Don. There will be members of the community that are going to be very open about it, and there is going to be others that feel like they shouldn't, at a minimum we should have a prototypical scorecard for use either publically or

internally. So it's 100% inclusive regardless of, I don't want someone needing to be somewhat quiet about their readiness, meaning that they don't participate, but I like where you're going with it. Don.

DON HOLLANDER: Yeah, so I kind of like the idea that by the end of, by the middle of January, you'll have a generic document that a registry and/or registrar could use to test their own systems. And if you then, and I think what I've just heard is, you might say, yup, I'm going to publish this in a private space for my direct clients, so that they can say that they can see, I don't know what one of them might be, but it, whatever it is, so green, and so this is, the system is green.

And this is what we're going to do. This is the schedule. And this is, and then when you're done, you'll say, and this is done. And I wonder if it would be useful to ask ICANN to do something similar just as an example of, you know, of… They've clearly now got a list of all the things that they're working on. Would it be unreasonable to ask them to make that available so that people can see?

What we heard this morning was, this is effortful, it's not impossible, but it is effortful, and you just have to, it's hard work. Would that be useful? Or not?

RICH MERDINGER: I think it would. I like the idea of having ICANN, who is speaking for the integrity, the stability, etc. of the industry, speaking to what a UA readiness template, if you will, can look like. I don't know exactly what that is, sitting here new, but okay. Andrew.

ANDREW SULLIVAN: So, it's been occurring to me, off and on while listening to this, and I just realized what is necessary. It strikes me that there was a big bump in v6 pickup when ISOC did that IPv6 day and then the IPv6 launch. And the part of, the goal of the IPv6 launch, right, was to make it too embarrassing for people to turn it off again. And so there is, like they've got a bunch of materials, ISOC has these materials, I imagine. So Dan York would be a guy that you could approach and say, "Hey, could we crib some of the things that you guys did for that effort? To bootstrap some of this?"

Because it seems to me you've got roughly the same sort of problems, right? Here is all of these systems that you've got to change, and the people who have the budget in the company are like, "Why would I spend the money on that problem?" And you know, so you've got, you've got a bunch of stuff that you could like…

I don't know how familiar, or how similar they are, but it seems to me at least somebody has gone through a similar sort of thing, which has not been completely successful, right? But compared to the first five years of IPv6 deployment, which was none, you know, things look a lot better.

RICH MERDINGER: Edmon.

EDMON CHUNG: Edmon here. Just in response to Andrew, I think that's a good place to start and I would encourage Dennis and others to take a look at that kind of material and see if we can steal some ideas there. But hopefully, we will be, hopefully we can do a better job than IPv6 in a shorter time.

ANDREW SULLIVAN: So there is a really important part of this that goes back to what we were talking about earlier, and that is the customer demand, right, really needs to be there. And especially in the case of IPv6, it's just too far down in the stack for a user to complain about, because they don't even know what an IPv6 is, if we're doing our job right. But everybody knows what their own email address is.

And so that is a place, I think, where you've got a little more leverage, and so you maybe will have some more success. But they're only going to have those email addresses if stuff actually works. And that's why I was saying somewhat, you know, in one of the earlier sessions, it would be great to have, you know, a real study on how many people simply cannot use ASCII in the environment that they work in.

That it just won't happen, because if you have that number, you know, you can say to people, "Look, here is a billion people who will never use the email system you've already got. So you've either got to come up with a new bootstrapping technology for all of the Internet, or else you've got to figure out a way to internationalize this thing."

But I don't know what that number is, and I don't even know how to find it out.

EDMUND CHUNG: Edmund here again. That brings a very interesting idea to my mind, and you mentioned earlier that one of your customers, you know, inquired about it and that becomes a much higher priority. So instead of doing all of these surveys and stuff, maybe what we should commission to do is send in complaints to, pretending to be prospective customers, and keep sending these notices.

I can't setup my, you know, or something.

DOM HOLLANDER: So that is what this little project that we're working on. Doughnut started this. They did, they went to some website and tried to use a dot email address, and it didn't work, and they created a little script that they sent to the webmaster, says, "I'm trying to use your service, but it doesn't work." So, I think if we try to do that in a big fashion, the friends at [MOG] might just be a little concerned, and people might consider that spam.

UNKNOWN SPEAKER: I have said, it does coincide with what the DNA is looking to also further, which is the awareness concept. And awareness doesn't have to be a billboard on the side of a bus, it could be a phone call to a call center letting them know that the issue even exists. And doing it in a systematic, and comprehensive, and responsible manner, may feel like it's a bit of an onslaught of activity against something, but it really is a promotion for the full use of something, because they're here and they do exist.

So I think that there is a wrong way to do this, and there are a lot of right ways to do this. And I think we can find one of the right ways to take on the endeavor.

UNKNOWN SPEAKER: Just a response to your point Andrew. One of the things that we've been looking at in the Middle East region, is that we asked, we did a multi-country survey and asked users which language they preferred to use when communicating with their friends, their government, online stores and so on. And it was for me very interesting to see how adaptable people in the region are, in that many switch language according to context.

And they clearly prefer to use their native language to deal with their governments and their friends, sort of what you would expect. They are able to, some of them, are able to switch language usually to English to do shopping. That's the one activity where you see the least use of native languages. But then you kind of ask yourself, why? And it's pretty obvious, isn't it?

They don't have an environment where they can use the languages they would prefer. They are adapting to the reality which is that most of the popular and good platforms where they can get stuff, are primarily English language. But the other interesting factor for me, was that 50% of people didn't ever switch language. There is a baseline of 50% who are in their native language, and that will vary of course country to country.

And in certain, the responses we got from certain countries, showed a lot less flexibility. You would tend to see, for example,

response from Iran from people using their own language in pretty much in every context, whereas in North Africa and the sort of Levant region would sort of drop out of Arabic and into English or French. So you know, this is a start. I don't claim at all that we've got a statistically significant data sample here, but it just starts to give you some indication of the sort of…

I think asking people about what languages they use for particular activities gives us a hint for, first of all their adaptability but also there is a baseline of people who will not be able to shift out of their native language.

RICH MERDINGER: Thank you. So from the stand point of… Earlier in this presentation, there was a list, it was the working group session, if you will, and you listed a few items. Is the intent that will be filled out, or fleshed out by a small working group between now and January? And I know that you will be involved, and I would be involved again. I do this a lot. Looking for other folks that are in the registry, registrar community to either volunteer here to be participating with this, because we are an industry and it isn't just one vendor and one supplier that needs to solve the problem.

Or if you're not a registry or registrar yourself, and you know or work with some, please encourage them to get in touch with us,

to become involved with this effort. So just because they're not here doesn't me that they should be involved in the effort or won't benefit from the effort itself. Don.

DON HOLLANDER: Yeah, this got raised at the GGD summit in Los Angeles. And there were a number of people who were quite keen to participate, and they aren't here. So I would just ask, as you guys engage with your colleagues in your respective constituencies, is get yourself… Find out, come up with the numbers to what you think will work, and say, find yourself some colleagues.

RICH MERDINGER: I think I will write that down as an action for myself to work with some individuals to figure out not just the numbers, but what is the recommended cross-section of our industry look like, because getting a bunch of… Having Verisign is essential, but dot com is not going to solve the problem for a new Chinese IDN, if you will. Now granted, you have your own transliteration, so I didn't mean that insulting in any way at all, but my point is I want to have a cross-section of perspective so we can be efficient and ground up on this.

DON HOLLANDER: And I would suggest that a couple of ccs as well, particularly those who have their own software, so the checks maybe a good place to start, or possibly the coca guys.

RICH MERDINGER: Thank you Don. So we have a break on the schedule before we do that? I realize we just did that during our technical shortfall. We did have a break from, it wasn't due to start until 15 minutes from now, and then we were going to move into the topic of linkification. And I'm very happy to continue along instead of breaking right now, or getting that started. So Dennis, can you start with that while I finish some notes?

DON HOLLANDER: I just wondered, it might not be a good idea to take a break now, because you've worked us all the way through lunch.

RICH MERDINGER: That's fair. Sorry. We're going to take a break for 15 minutes now. We are due to start back at 3:15 if you don't mind, starting back at 3. Maybe we'll actually get done a little bit early today, we'll see. Thank you. We can stop recording right now.

All right, we're going to be coming back from break now. Give me just one moment.

We have an upload in progress, I'm quite excited to say. I will speak more slowly so it can finish. There you are. Thank you very much for your patience everyone. We wanted to have the technical difficulties resolved before we started instead of during the discussion.

We are on our final formal piece of the afternoon, which deals with the readability and linkification of a domain name, I believe it's entitle, "How do people and computers detect a domain name?" And this is not that we're going to sit down and show you the answer that we've resolved over the last couple of hours, but that it's a topic that should really have some good discourse, because how do you determine…?

How does Microsoft Word or any other word processing program determine, did you forget to hit space after the period in your sentence? Or are you designating yourself an identifier for use on the Internet? I mean, this is a simple topic with very, very hard to resolve. At any rate, I will give it back to Dennis again to lead for us. Thank you much.

DENNIS TAM: Thank you Rich. And I expect my colleagues Rich and Mark to help me on the way too. All right, so how do people and computers detect domain name? So in short, linkification. Right? That's a very topic of, that universal acceptance steering

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group, it's going to focus in the following weeks' time. So we want to officially kick off these linkification work stream, and want us to gain a better understanding how, what the extent of this problem, from a people and computer levels.

But at the end, we have to decide where we are going to focus on.

So just as a way of background, right? Early conventions, we're talking about, what? 30 years ago? Right? When the Internet started. So people, used to see a www, or http in front of a domain name, and that would signal them to oh, this is a website. And pretty much the same for computers. And here, they use http or www and the string that will follow will be hyperlinked, right?

It will make it a hyperlink that will go to actual domain name. Now, today 30 years later, you don't necessarily have to have the www or the prefix http in order to understand it's a domain name. Most likely, this is going to be where the domain name is using a well-known TLD, like net or the ccTLD. And as far as computers, well the user experience varies across applications and also character sets.

And we have a few examples to show how different that is. So for example, user generated content, like in social media application, right? They don't know about this prefixes other

than www, but not every single website uses a www for domain names, especially now in the new gTLDs, www is going away. We also have to keep in mind the internationalization of it. We have the [inaudible] full stop, that's a, in the CJK character set, the Chinese, Japanese, they don't typically use the close dot, as what they, I learn they refer to as a close dot and an open dot.

So they would use an open dot for the full stop. So how do we deal with that? And today, Internet browsers, the major Internet browsers, pretty much deal with it. They map the open dot to the closed dot so that they treat it as a domain name, and the user doesn't have to do anything. We also have to think about what are the [inaudible] in order to tackle this problem.

And these are, these stable functioning item, it's maybe not clear on the screen so I'm going to try to read it for you.

So, from a computer standpoint, this is just a taste of what application A and application B do in terms of linkification. For example, if I use this domain name, example dot com, no prefix, the expected output could be the same as stream. Because I'm not putting anything as a prefix either www or http, so the application, okay, I don't know whether this is a typo or are you intending this to be a domain name? So I don't know.

So application A, application B, I mean this are real application, but I didn't use the domain names application. There was no

change. So I think they expect Apple for this application was, okay, so I don't know what you're intending to put here, so I'm just doing nothing.

A second use case, is using the prefix www. And of course, you would expect that that it turns out to hyperlink to a website, so http www example dot com. And as expected, application A and application B linkified those domains. Same thing for an example of example of home dot example dot com, using http as a prefix.

So what is interesting though, here on the example with an IDN, www dot [inaudible] dot com, so the expected behavior should be, because I'm using the www prefix, then I should expect that to be converted to a link. That happened with application A, but didn't happen on application B. So definitely there was a different way of processing that string in the application, in the baking of the application, so that one map it to a hyperlink, and the other one didn't.

The same thing happened with the http example, and this time, I'm using a, the open dot or the [inaudible] dot. So the expected behavior would be to linkify that string, and it did happen on application A, didn't happen application B. And the same thing we expect that to happen with the prefix mail to for email addresses.

So these are the type of test cases that we're going to have to do for several applications in different settings, in order to understand what the behavior and what should be the desired behavior, so this work stream will come up with good practices guidelines in order to tackle that.

So again, what's the desired outcome? First, we need to decide what's in the scope, what's not. We talk about how people detect links, how the computers detect links. So I'm suggesting that computer behavior, it's in the scope, so we want to produce best practices for application providers to define when they should linkify strings the way they should not, but as far as people's behavior, I'm suggesting this is out of scope, but maybe a community outreach. So I think that's an open question for the group to consider.

RICH MERDINGER: When you say people behavior, could you explain that a little bit? I think it's late in the day for me. I'm not sure what you mean by that.

DENNIS TAN: Absolutely. I'm sure you're not the only one. So people behavior, so how the people detect, it's education. So and I think this group, the charter is not about education.

RICH MERDINGER: I had to, as I was listening to Dennis and watching the slides go by, I looked up and I noticed that we've essentially made a statement through our logo on what people behavior ought to be about. It's something between some level of protocol because I'm sure the forward slashes were put there because it implies the protocol that would be becoming before, and it doesn't matter, it almost could have been star slash slash, you know, in a sense, which I'm glad it's not because this is better.

No they are wild cards. So but that being said, and this is another example where there is a very solid intersection with efforts from other communities such as the domain name association, who is also looking to try to ensure that in general what is in an address look like wild, on the side of a bus, if you will, what does it need to look like? Don.

DON HOLLANDER: Suggest raising AP TLD at a meeting in [inaudible] last year, and this came up with respect to the Arabic domain names. If you see an Arabic domain name on the side of a bus or a billboard, how do you know that as a person? And there was no answer that came out of the meeting, but there was that question, and quite relevant to the DNA because one of the key drivers of that was Adrian [inaudible].

And he's saying for the Arabic community, how do you tell the community this string is a domain name? There was no answer but it was a leading question at the time. And I think, that's the bit that Dennis is saying, is that bit in scope for the UA, and I think Dennis is suggesting it's not, but it would be good if it is in scope for the DNA for example, that we work cooperatively, because our focus is on the software community. Is that a fair…?

DENNIS TAM: Yeah, I think it's fair. That's a fair characterization Don. I just want to add, when it, I mean, linkification, if we approach the application later, that's something that we can define a number of guidelines that we apply to all, right? A set of guidelines that applies to all. But in terms, when it comes to people, and we have thousands of or hundreds of new TLDs out there, they are not going to be a unique set of guidelines that we apply to all.

It's more on the companies, the registry operator best interest to advertise their TLDs, and educate their potential end users, how to deal with those.

RICH MERDINGER: Yeah, I agree with you. This is Rich. I agree with you from the standpoint of if dot TLD A has a mechanism where they want to

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promote their new TLD and how it is used one way or another, or if a company happens to have a dot com or a dot photographer or dot whatever, they may use different font treatments, there may be different ways to emphasize their brand within that TLD.

However, the lines for me get very blurry between people and computer because you're talking about a person using a word processor to type something in, that is going to have characters that are interpreted by the computer, and then modified and presented back during that interaction with the human. It's less about out in the wild seeing this as a domain name, but it's still an expected versus unexpected behavior and consistency is important I think.

DENNIS TAM: This is Dennis for the record. And so I see your point, right? The linkification has a user aspect of it, because yeah, we are the ones that input.   So yes, we'll have to take that into consideration from a user experience standpoint, but not from a domains in the wild standpoint.

RICH MERDINGER: Right, I agree. It harkens back to me a little bit, what Andrew was mentioning about the IETF, and I feel like there is a portion of what we're talking about here with the way that the

computers are going to be interpreting, and I don't think it comes to the element of the capital s should, where things should do things. But it seems that if there is a way that if things all worked according to the RFC, we would end up with consistency.

ANDREW SULLIVAN: So certainly not a RFC, right? Because this is really user interface. And so, there are sort of three things that I would say… If you go back to the chart there that had all the various different examples on it, one of the things that I found very interesting was the suggestion that triple w dot, and I guess those count as dot com, that should obviously be linkified. And that doesn't seem to me to be anyway an intuitive answer.

My feeling is that something with a scheme name on the front, right, that's clearly a URI. Something that has a bunch of dots in it, I have no idea whether that's a URI, and it drives… Like I read a lot of documentation right? And so like, if you're working with Java stuff for instance, you're always naming these class pads. They've got all kinds of dots in them, and they're always immediately linkified and it drives me out of my mind.

And I can't turn it off. Or it's in like, you know, it's buried eight layers deep in the menu system somewhere, I still don't know how to turn it off. So those are things were it really actually

depends a great deal on what the user is expecting. I think the same thing is true probably in the case of Arabic script or actually any right to left script examples.

Like, what do you do under those circumstances and what do you expect? What kind of separators are people actually typing in? What do you expect? And a lot of this will be condition by what people are used to typing in browsers, and the problem, of course, is that decreasingly, people type domain names in browsers. So it's hard to know what people's intuition is going to be because they don't have them yet.

I think the best guidance that you can give for real developers, so the guidance to go back to the earlier things about like, what would you tell CIOs? Well the CIO has to say, do you have an idea about how this, do you have conventions and do you understand what they are?

And then the developers need to have like a stylebook for what linkification looks like and so. And presumably, that style guide over time in the industry, is gradually going to tend to converge, right? But it seems to me that one of the things that will be really handy to do is work out, what do users in these various kinds of script communities expect to have happen with this?

You could do that actually by studying user behavior or doing surveys or something like that. Because it really seems to me

that, you know, there are going to be different answers depending on what the user community is, and what they're used to having happen with string they input.

Linkification probably for, you know, general purpose word process, like, I don't know, something [inaudible] or one of those kinds of project, right? Where you've got a lot of stuff in it that is software documentation and so on. It's not obvious that automatic linkification is a good idea in there. In fact, what you normally do is paste a link in instead. So that's an example where the… The conventions that are normal in a word processor are violated in that interface, in the interest of giving you another kind of feature that is easily accessible to the user community that you're aiming at, and that user community is frequently software developers, so they've got a lot of stuff that have these dots in it.

And I think laying out all of those different considerations was super helpful, but I am not competent to do it, because I'm not a user interface person.

EDMON CHUNG: Edmon here. So going on what Andrew just said, it seems like, you know, we kind of jumped into this and thinking that this should be universal, but it needs to be context based. And we probably need to setup those context or scenarios if we are ever,

if we're producing a document that says these recommendations, and we need to create the context. You know, this is the scenario. And under this scenario, this should be linkified or not.

That part needs to be added.

RICH MERDINGER: It's funny, I'm sorry. I was thinking through as Andrew was speaking and getting to the point of Dennis's terms with the person behavior versus the computer, and that's a bit of a broad statement to say person, when you think about the different types of people, the different locations, even developers in different regions. So the biggest takeaway right now is that one size does not fit all, and we need to embrace that.

Linkification is a multi-tiered problem to solve. Yes please.

UNKNOWN SPEAKER: So one of the places this could be developed is conferences which deal with language processing. And I'm not really sure how detailed you want to get into this, but this is something which can obviously solve two rules, which is probably the what in the streets is doing, or maybe this is, this can be addressed through a more advanced machine algorithms.

So I guess one thing which, problems like these always need to be addressed is tested, and I think one of the things we can probably look into as well is if we can produce the relevant tested and make it available for the community. Then we can do multiple things with it. So for example, in the language processing community, sometimes what happens is that on particular problems, data is released and you call for a competition to have applications developed, and you actually hold a workshop along with a regular conference, session conference, and have people come and present their algorithms and things like that.

So that's something which even UAG can probably sponsor as a workshop. But precursor that kind of interest, developing that interest in a language community is actually to develop that test data set, which will eventually be using to [inaudible] the systems and then obviously to test them as well.

RICH MERDINGER: Thank you. First of all, I think that's a very, kind of an interesting and an exciting suggestion on the workshop because of the level of engagement that it actually brings out as well, not just solving a problem. Brent, very timely, was leaving, so I was going to ask him a question. So basically, another area where linkification is extremely important, I assume would be in web crawlers and

understanding the text of the Internet and what is a reference to another one.

And you have, in your html of course, you've got your A refs, etc., your H refs, excuse me, with your anchors and all, but there is also books that are scanned and other materials that are viewed for the context. And when you think, is there processing goes on inside of your company, where linkification in a completely different context is being done? Where data that might be a volume that we could leverage? No.

BRENT LONDON: I don't know anything about the search indexing process. I would imagine that there is some plain text link detection going on there, but I don't have any firsthand knowledge of that. We definitely see it most visibly in documents and emails, which, and we were talking before about how important context is. And unfortunately, they're just blank spaces for text, so they're not very context specific at all.

I don't know how that's handled in other areas like search indexing. Does that answer your question?

RICH MERDINGER: It does. I mean, basically it's an issue that exists for a component of your company that deals with data in massive

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quantities. And you theoretically would have much on accurately those algorithms are finding and processing, what IDNs are doing to that accuracy, things along those lines.

And as we try to contribute… I'm not trying to put you on the spot, as much, wow, if you weren't here, we would say we should talk to Google and see what they can do to help us with this.

BRENT LONDON: I've never encountered link detection and linkification as a problem in the context of search. I think it's, in many cases, when it comes to indexing data, we already have that data structure because URL, or it's in a link in the content of the page itself. In books, I think it's probably even less of an issue because books are never written to be able to have text that's clicked, although I'm sure there are plain text links in books as well.

So, I think search and link book scanning are probably on the lower end of where this problem shows up for most users.

RICH MERDINGER: Okay. Thanks. And you may go. So other comments? Dennis?

DENNIS TAM: So I think we can tackle this project in two phases. Where phase one would be to achieve or a set of guidelines to, consistent behavior at the application level. So this means that one application behaves the same, or is expected to behave the same across all platforms and operating systems. So as a way of example, if I have Twitter, I would expect that user generated content on the Twitter application across different platforms, being mobile or desktop, again mobile or other operating system, is the same.

And when I say this, we're going to look at to the, building the practices, what are we going to, or how are we going to define what is going to be an acceptable link? And we have indicators for example, the www, right, the host names. Do we want to do that or not? Protocols, I think that those are the obvious ones, and these are an example of the protocols or the schemes that one might use to seek now a string is a URL.

So for example, http, FE, mail, fire, and data, etc. And it has a bunch of edits, because it's meant to be a workshop so it was raised just to provoke a reaction with questions, so whether this is a, in the right direction or not. So in Mark and I went and build a draft list of what would be good linkification behaviors.

First one is to attempt to linkify based on prefixes. And this could be the www, the schemes names. But only complete the

action if the rest of the string is well formed. And I put in red whether there is a RFC that is fixed to what is a well formed string. So that needs to be completed. Number two…

UNKNOWN SPEAKER: The only requirement for a DNS label is that it be under 63 octets. Octets. Anything at all can go in there. It's just that we have this operational convention that makes the LDH work, which is why we've got IDNA. The story here is terrible. You don't want to know all of it.

[LENETTE]:   So this is [Lenette] [inaudible], we have a comment in the chatroom. And basically it's just a comment stating, let's test linkification of this system, and then there are three different systems that are provided. And the second comment from Andre, "My brief testing indicate the system does not linkify IDNs."

UNKNOWN SPEAKER: I'm assuming by this system, meaning the Adobe Connect. Makes sense. That was a good test. And Don is asking, what about ASCII dot ASCII? I will not read every comment aloud. Just so you know. Action to contact Adobe. Got it. All right.

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One thing we haven't mentioned here in linkification, and I don't think it really matters that much, but we didn't have any port numbers at the end of your strings. Like colon and then the specific port. Does that, do we consider that in scope or out of scope? Because it implies a lot. That's true, that's true.

But well known ports are well known, and should they be used… I'm just wondering, does it include, does it become part of it or not, and saying it's out of scope is fine, I just want to…

UNKNOWN SPEAKER: So you're asking if you have example dot com colon 80, should that automatically be turned into http…

UNKNOWN SPEAKER: And should 443 automatically default to https?

UNKNOWN SPEAKER: And so on. That's a really interesting… So I've got to be honest with you. I react to all of this as, what a nightmare. Why did anybody every think this was a good idea in the first place? And I guess I know why, but the real, the problem is that, when you take plain text and you automatically sort of search for things in there, and then turn them into links, what you've really assumed, and this is what people generally assume, right? Is

that links are http, and everything is really hypertext and that's what's really going on here.

And I get why people started doing that. But the, you know, the consequence of that is basically that whenever you've got a string with two dots in it, it automatically gets turned into a link. And you know, maybe that's a good enough rule of thumb for a lot of cases, but I mean I can see how badly it breaks just in these examples.

And that's what makes me itchy about it, because I don't see anything that's going to be really fully satisfying to everybody in every context. That's, there are just too many variables here, right? Because like the audio graphic dots, for instance, are useful separators, but that's not, I mean, this was exactly what [inaudible] was saying earlier, right?

That that's not a character obvious for Arabic script use either and there is a different one there. But since the dot isn't part of the DNS… Yeah, let me put this another way. Because of the way IDNA works, the ideographic separator turns out not to be possible as a character in a U label, but it could be a character in the DNS.

In fact, the dot can be a character in the DNS, which really sucks. And so, this is why this is so hard, because it turns out that DNS was intended to be this fully general purpose thing, and we keep

making these operational conventions, and every time you invent another one of these conventions, that is bound future development again.

So I'm a little nervous about linkification just as a general problem, because most of the cases are going to lead to corners that constrain what you can do in the future in an uncomfortable way, and that's my overall reaction.

ERIC CASE: My name is Eric Case. I work on instant case search engine called [Domainer] dot com. The reason why I'm asking about this, and I want to mention, that is a known public suffix list does the bulk of the work to tell higher level and the stacks software what can be auto linked and what shouldn't be. So it's not just two dots that you just decide to be a http link for it, there is a list of several thousand known public suffixes that browser vendors already use, the Mozilla public list to decide to be what can be code and what shouldn't and all of that stuff.

And that's scoped to the browsers problem, but I'm just curious if that plays the role in what you're talking about.

UNKNOWN SPEAKER: You just tripped over one of my favorite hobby horses. So the public suffix list is, I mean, it was a pretty good best I could do

this afternoon idea. And I understand why people are using it, and it's because the original cookie specification was broken. So what's happened here, right, is we've got several layers deep now, of misunderstandings of the way the DNS works, and we keep adding another one.

And so the public suffix list is one of those ones where it gets shipped, and it runs out of date very quickly, especially right now, and what people are struggling with now, is how do you keep that thing up to date, especially since it's maintained by volunteers in their copious free time, and so it gets wrong all of the time. You know, you've got this maintenance problem because the people who maintain the public suffix list are not the people who are maintaining the list in the DNS.

And we actually have a working group at the IETF that is trying desperately to get enough cycles so that we can work on this problem, but it turns out to be hard.

UNKNOWN SPEAKER: I don't know if this is relevant, but the way that we solve this for our product was to write a thing that started as a data set, with the public suffix list, and then crawls the root servers recursively to get everything, including the name servers that just, it updates itself with a, like sends us a poll request with the

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updates nightly. And it's always up to date. So I don't know if that's useful.

We call it zone DB, it's open source, it's on Get Hub. But we just, that's how we solved it in order to move on for this stuff in our own product.

MARK SPENCER: So one of the reasons we had the suggestion there, don't require a DNS check, that's similar to the suggestion, don't go and, you know, look at a public suffix list, because some of this is just about working on just a word processor. So the question was, does linkification require an active Internet connection? But that's really what that is about.

So if you assume that everybody is always connected to the Internet, even if they're, you know, editing a document on their airplane or something like that, do you give up linkification if you're offline? That was one of the, that's the context of that one there. Is don't require a lookup because you might not be connected, and people might not want you on the Internet just because I'm writing in Word Pad or something like that.

We can argue about whether that's the right tradeoff or not, but that's where that suggestion came from. And so, again you could download from the public suffix list at, or some

authoritative source, you could download from time to time, keep it cached away, look it up in your table, stuff like that, and then that solves a couple of the linkification problems. It still doesn't solve all of the problems.

UNKNOWN SPEAKER: It addresses, this is really interesting and there are a few comments I would like to make. One of them, that address is the idea that there are known identifiers that are eligible for linkification, and they are the ones that have been codified by the global world. I set up my Internet at home, and I still want all of my internal private domain names to also, because I run my own DNS server, and I'm going to play around, etc. And it should be algorithmically based, not data set based on what is linkifiable, and what is not, etc.

[CROSSTALK]

UNKNOWN SPEAKER: …open discussion is, is that the definition of this dynamic RIR creation? Should it be what you just said? Or should it be some other thing. So we started from the particular place, similar to you. We didn't capture that context in this line.

UNKNOWN SPEAKER: I'm with you. Andrew.

ANDREW SULLIVAN: So, do we expect linkification to work for non-DNS names that still work with http, for instance?

UNKNOWN SPEAKER;   Do we? [CROSSTALK]

ANDREW SULLIVAN: Well, I'm pretty sure, for instance, that if you put into many word processors, triple w dot example dot local, which works on, but it's using MDNS, it's not using DNS. That will probably get http'd. But if you just put example dot local, it might not. And that's kind of funny because the way that you would actually use that is just example, right? That's the UI single label because you never see the dot local part.

That's the kind of thing that presses against us, particularly as people come up with new and crazy ways of producing alternative domain name compatible, name resolution systems, like the [inaudible] people and [inaudible] naming system, and there is the TOR onion stuff that was just created.

I mean now there was a reserved special use TLD for that. Those things are all showing up, and if we want to talk about this, one

question that I would have is, do you want to scope this to the DNS or not? Because if you do, you get one set of answers, if you don't you get a very different set of answers here, because you're going to have to be able to handle all of the things that are excluded on DNS on purpose.

UNKNOWN SPEAKER: Just wanted to capture that, sorry. Brent.

BRENT LONDON: So, my opinion on that question is that since we've all formed as a result of new gTLDs and IDNs that are being added to the DNS, that we should be scoping our problem to problems created by that new program. So DNS only, if you have dot local and doesn't get linkified, it's not that big of a deal.

Obviously this still is very context dependent, but I think that people who need links in that situation are in the minority compared to public DNS users.

UNKNOWN SPEAKER: I'd like to add one caveat to that. Part of universal acceptance also is just general RIRs like the network pads within a corp net for instance. And in those cases, I think linkification is, there is usually a delineator like slash, slash; machine name, slash, the

rest of the path. So that's pretty easily linkified, but I think, you know, not realated to the DNS, but is subject to UASG, however it's a trivial problem.

You know what I mean? You know, in trying to get at?

UNKNOWN SPEAKER: Yes. Well this is an interesting question. Don and I have talked about this a lot, which is that, and I don't know if we want to digress too much, but I was not under the impression that pads were in scope of what we're trying to cover at all. I have similar feelings about it too, which is, it's not like part of the new domain names that are coming out, and so we don't need to include it in scope. I'm not sure what the sentiment is for the rest of the group.

UNKNOWN SPEAKER: I'd like to suggest that it isn't in scope, but it is in context. We need to, anything that we are going to do, if we limit it to the DNS, and this was that second point I was going to make earlier that Andrew helped me kind of solidify and that is the frugality and the somewhat ad-hockness of what we're trying to improve upon right now when it comes to linkification.

And jokingly in my mind, I came up with none of the above, or linkification colon don't. But none of those actually solve a

problem, provide value, and actually get us where we need to go. But we can't just say, wow, look at what we had to deal with in the past. That was really hard and didn't work real well. Let's wipe the board clean and come up with something fresh.

We have to do it, come up with something fresh, but what we've done before, because that is framing expectations in some circles. It shouldn't hobble us, but we should do it in the context of that. My perspective on your question, Brent.

UNKNOWN SPEAKER: We have another comment from Andre. "In the case of browsers, we need some way of users being able to tell a browser that what is in the address bar or is not in the link. A simple button would suffice."

UNKNOWN SPEAKER: To add a comment on that. I think that address bars are one of the less ambiguous places to run into this problem. I know Chrome, for example, uses whatever version of the public suffix list was available when it was released, to determine whether what you've typed is a query or a domain name. So I think Firefox does the same thing, Safari might do something similar… Yeah, it does the same.

So I don't know if this is a big problem with browsers as opposed to everywhere else in free text fields.

UNKNOWN SPEAKER: I would say that one of the things that linkification really needs is context, and you've got supreme context in that it's an address bar. Just like a password field in a browser has the context of not showing what is being typed instead of replace it with some sort of visual queue as to the number of characters, etc. Don.

DON HOLLANDER: Yeah, just to counter that it's not a big deal. Of the complaints that we've received, that ICANN has received on UA sort of issues, it's, I typed my new domain name into the address bar, which is also a search box, and it treated it as a search term and not as an address.

UNKNOWN SPEAKER: I haven't tested all web browsers, but in the cases of where I've come across that that's the case, it's because someone has not updated their web browser in a long time, or it's non major browser like an OEM browser on someone's phone that doesn't have an update available.

DON HOLLANDER: So in this case, it was a very major player.

UNKNOWN SPEAKER: I think it's, it's not so much you haven't updated in a long time, there is a certain latency through the pipeline. So, the TLD is delegated then it somehow makes it into the public list through the work of busy volunteers, and then the next version of the browser comes out that is able to consume that list. And so, there is a chain of events that has to happen, and if, you're delegated one day, and you check your browser the next day, the odds of it working on that particular day might be pretty low.

UNKNOWN SPEAKER: With the PSL, in some cases, something is added to it weeks before it's also delegated, in some cases…

UNKNOWN SPEAKER: Yeah, in some cases it's going to be fine.

UNKNOWN SPEAKER: But yeah. That's also possible too.

UNKNOWN SPEAKER: Actually Edmon had a question too. But I'm wondering whether that's actually a problem. If there is like four days, or two weeks, or whatever it is between when the PSL gets, between when a domain is delegated and when the PSL gets updated. Then everything starts to work properly for that TLD.

EDMON CHUNG: Edmon here. So we keep referring to PSL, which is a public suffix list. This morning, there was this discussion, and it is one of the topics that I want to talk to about. Is this the time to talk about it? Because one of the things is, this might need to be part of what we do anyway, as well. And there is a SSAC report that came out. I think it's 70 or 71, that urges IANA to actually take on the public suffix list rather than continue to leave it to, as mentioned, volunteers.

And Andrew mentioned there is some ITF effort there. Is that something that we need to work on as well? And how does that relate to linkification? It seems like the more we talk about linkification, that's a critical path in some ways, the PSL, public suffix list, and how we use it, how we treat it, four days in many cases are not acceptable. But what is in the critical path to make that list? I guess update it more quickly, and the things that depend on those type of lists updated more reliably and quickly.

I think that might be, I might be summarizing a little bit what the SSAC report says, but that's a starting point I think we need to take into consideration. I don't know how it fits into our work, but that's an item.

UNKNOWN SPEAKER: Andrew, did you have a comment?

ANDREW SULLIVAN: Well, I do have a comment in that I would really like it if people contributed to this work. So the goal of the, it's the D bound working group, domain boundary at the IETF. You can all join the list right now and instantly you're members of the working group. It's D bound at IETF dot org. But you have to work then, right? You've got to review documents.

The point of that work is to make this, is to align the maintenance of these problems with the people who are operating the domain names, which has the nice property that then you only have to update one person. But the other thing that I would say is the PSL was updated months ago actually, to include all of new TLD applications.

So the PSL has all of them in it, and what it doesn't have is the bit about whether they've been turned on or not, and different browsers have done different things with that. That's where the

thing is now. It's in the browsers. It's not the PSL updating, it's not where the problem is.

UNKNOWN SPEAKER: Thank you. George.

GEORGE: Hi there. George [inaudible] from dot build. Just a real world points on some of this from both a user and a registry perspective. So I've noticed on a couple of the different ISPs, that just personally speaking, originally on Verizon they would, what I would call, hijack a domain to a search if either it was typed in wrong, or in some cases, I'm not quite sure on the history of it.

I didn't trace it all the way down to, if there was a name associated or not associated, so it would depend on how you would type the name into the browser. In any event, it didn't resolve, and then it turned your query, which should have been very easily identified as a domain name into a search.

And that was just a personal experience that I noticed. I'll find out a little bit more on the root of if it resolves, whether you type in www or not, and whether that was an ISP side or if it was something happening, how the name was, the domain records.

But I just wanted to point that out as an example where we're seeing it a little bit.

UNKNOWN SPEAKER: Thank you George. Dennis, we kind of hijacked your deck.

DENNIS TAM: No, that's, that was the purpose of this workshop, right? It's to spark conversation and maybe challenge whether this is a good project to put our efforts in. So good stuff.

DON HOLLANDER: Dennis, what was the conclusion to that last? Is it in scope of the UASG?

UNKNOWN SPEAKER: I was going to recommend as an action that we formally define the scope within the context, within a reasonably short period of time. But I had never even considered other verticals like ISPs, as George just mentioned, where linkification comes into play. It's more than just a user experience or design characteristics. It's actually going could affect the functioning of the resolution, if intermediary providers start doing linkification based on the strings that they're seeing.

I don't, it depends on what is. Go ahead.

UNKNOWN SPEAKER: So my knee jerk is that the problem here is likely an X domain interception, right? What happens is you get a failure on the DNS lookup, and then somebody starts doing something magical along the way. And that is a separate problem from this. Like, really dramatically separate because it's at a different part of the stack. But what happens of course is that from the user's point of view, it all looks like the same thing.

And so this might be a separate problem that this group needs to talk a little bit about. SSAC has already issued advice that is please stop that, but I know that one of the largest ISPs in the US, that happens to have a large install base of fiber, continues to do this, for instance So it's a persistent problem. That's the regularly, and it's extraordinarily confusing if you can't figure out which part of your application all the way down to your ISP is doing it for you.

DENNIS TAM: All right. So…

DON HOLLANDER: Yes, just one last comment. You'll remember the APNIC labs report, that came out a couple of weeks, months ago, and Jeff is gone, but one of his questions was, when he looked at the data,

why we're there, these little anomalies as to things didn't work as they should? Not about the IDNs, but just generally.

And sometimes they were more prevalent in some communities then other communities. So I think we keep it in scope, that's fine, but I think there is bits that have not a lot to do with the software developers, and we need to make sure that we work with whoever the right folk are in terms of whether it's ISPs, or hosting companies, or whatever. Does that make sense?   Or is an application specific thing, yup, that's fine.

There are other places where things can go differently than you might expect. And let's work with them as well.

DENNIS TAM: Yeah, so I think what we are doing now is, we're taking the action item to review what this scope is going to be, and put it forward to, for comments. So going back to the…

UNKNOWN SPEAKER: …to interrupt. That's what? We need a who and a when. I've been doing that all day.

DENNIS TAM: What is defined as scope, I think. Who? You can put my name on it along with Mark, I think.

UNKNOWN SPEAKER: Anybody from outside the UASG interested in this topic? It has been one of the more lively discussions. So I'm assuming there will be, there is a complete vertical of interest in this, all the way down to protocol level, all the way through applications, ISPs, etc. Just one more person. Pardon?

I was kind of looking at him most of that time, and while he…

UNKNOWN SPEAKER: I try really hard not to join stuff, but okay.

UNKNOWN SPEAKER: We'll do it in a way that makes it fun.

UNKNOWN SPEAKER: It's actually the response time. My mean response time has been going up for months now. So I'm just worried you might not get your answer as fast as I can but yes I'll do this.

UNKNOWN SPEAKER: We'll treat the annex domain issue with this as well, when you don't, you'll respond, we'll go ahead. Anyway. Thank you very much for that. And the when, I'm going to allow Dennis to think

about through, and I'll just put it at the end of the session today. Thank you.

DENNIS TAM: All right. So going back to the presentation. We really don't need to go through every single detail, because it was meant to be items just to start a conversation, and we might as well revise everything here, depending on the scope we're going to come up with later. So moving on again. We're going to define this when we scope it up, what linkification is going to be about. And that's it for me.

RICH MERDINGER: Thank you. Again, trying to take notes at the same time. One of the things that we're about to do in a moment is transition back towards a bit of a recap, and then also talk a little bit about tomorrow in the public session. Is that right Don? Okay, what I've been doing throughout the day is to capture for each of the different sessions we've gone through a what, who and when for action items, so that when we're done with this section today, we don't wonder what we're going to do about it, but that we've actually throughout the day have identified things that we felt were important in the moment, individuals that were willing to put their name next to it, and a time which we'll know we'll get together, and we get together next time whether it's in

Marrakesh or whatever that venue is, we are going to see some level of velocity, success, and failure.

So accountability is something that, it helps most working groups. So if we're doing with linkification, my standpoint, we can start walking through… I ended up with 17 action items for us. Yeah, Christian, I know you're excited about that. I don't think…

We have a tool that we can start using now. Go ahead Don. If you have a thought about how you want this to run, I have been scribing.

DON HOLLANDER: I'm just wondering if we could just use your, turn your thingy into a thingy, so that… I used to be technical a long time ago. But so that everybody can see what you're seeing…

RICH MERDINGER: I'm thinking because we did write them as internal notes, and I just want to make sure that, in the moment, I did write quickly sometimes. So just give me one moment, okay? I thought about that before and thought maybe it wasn't such a hot idea. Linkifying my comment here.

Instead face to face, it was face three face. I guess it was three people together talking. Anyway, so let's see. How do I do this?

Thank you 17 actions. Brent, you're part of the first one. It dealt with local part transformations for EAI, addresses coming up for the recommendation for its implementation, if you remember that. We have that as a Q2 for the 2016 face to face gathering. Is that going to be in Marrakesh then?   Washington, so that's actually in January. That's Q1.

That's Brent leading it. Anyone that is listed here is encouraged to engage with anyone that you think might be helpful and has time to help. Okay. The second item I had on the list was also Brent and Mark. And it dealt with CIO guide system architecture guide.

And we again had a middle of January or January 14th readiness for that.

UNKNOWN SPEAKER: Talk to probably you, and Mark, and Don about what exactly that entails, but I don't think it needs to be done with a full audience.

RICH MERDINGER: Yeah. This is just my action list, I do have more notes on the other side. And I think what we had talked about doing is stratifying into a, we need something very short for CIOs to grab their interest, something a little meatier for CIOs that would actually give them something that they could digest, and then also a more detailed segment of that document gets pulled out and everything specific to implementers and architects. Is that about right Mark? Okay.

Third item on the list that I have down is Christian, which is the creating the form environment. And I think we need to decide, we talked a little bit beyond that and started about using stack exchange or some other existing forum. And my thought on that was that we don't necessarily want to create a new destination where we want to try to draw people, but that we probably want to insert ourselves into a destination where the people that were trying to go, or speak to are already going. And that's why I like having it in stack exchange or something like that.

So that's Christian, and again, that is by the 14th, we would have a recommendation on it. It's just a creation identification and creation of a form. Fourth item, was to come up with a model for local outreach. And on that we had Don, Tony, and a name that I didn't type well. [Inaudible]? Thank you very much, I apologize.

And we had November 30th for that one Don. The fifth item was to address a talking points memo project, and that was Christian, Emily, and Yuri. And I believe Emily suggested that she would like it to take as long as January 14th instead of doing it within 30 days, just giving the scope of what it really can be.

I refer to it as the talking points memo project because it can also include the identification of additional research that needs to be done. So it's more than just, here Brent, here are these six things we're going to talk about. It's formal set of talking points that can be meaningful strictly in the long term. Okay? Edmon.

EDMON CHUNG: Edmon here. Just a point, I guess, a point of order. Do we discuss…? If I wanted to suggested it right now, or are you going to go through the list first then come back?

RICH MERDINGER: I would like to do them as we go through the list and do it once, if that's okay.

EDMON CHUNG: Sorry for jumping back to the fourth item, I think it was. Local outreach. So I did the presentation at ALAC, and ALAC has an outreach function itself, in fact, they suggested that we

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connected with their outreach function and use a similar channel to outreach. And I guess adding to the three person, we should add a person from ALAC, I think I can try to find out who is the right person and add to that group.

The other one is a brief conversation with Valerie from ICANN. ICANN hubs are also I think good ones to add to that work. So, I'm kind of volunteering Valerie also, Gwen may have a better idea.

GWEN: Yeah, I'm full of good ideas. No, not really. Actually you've seen the hubs, but also you've seen our global stakeholder engagement team. They're based worldwide a typically what we do on issues on this name collision, we actually push out packages with slides, messaging, so forth. We ask them to include it when they're meeting with businesses, governments, and so forth.

So we can do that. And then the hub regional newsletters, we can also include little piece of information in each of those.

EDMON CHUNG: So Edmon. So does that mean we add you Gwen? Well Valerie, we're adding, right? You're okay? To that little group, to… Kind of scope it out, right?

RICH MERDINGER: I would like to suggest that we not continue to expand the who too far, because we lose accountability, but you would include those individuals as part of, I've added you. Let's put it that way. That will teach you.

GWEN: What I suggest we do is Valerie and I can work together so we have a coordinated push, so it's not just out of the APAC hub. So coms can take the lead on it and then we'll work with Valerie and representatives in each of her hubs.

RICH MERDINGER: Yeah, I appreciate that. It's not… No, Edmon, I won't put your name because you're at ALAC comma, so you can figure out who that should be. But yeah, no I don't just do that too much. All right. We had a relatively straightforward item for Christian, Gwen, Mark, and Don. And that was to create a universal acceptance DNA Google Doodle. So set up a meeting to take place for within the next 30 days.

To talk about the universal acceptance and the DNA collaboration points. Is that accurate Don? All right. Elaine, Lars, and a comma with no name after it, create a method for sharing industry contact databases. Basically we have to… I

don't remember the exact session this was, but when we think about identifying issues on the Internet and vendors that need to be contacted, or system owners having a shared set of information could be very useful making those communications very effective.

We just need to be careful about someone sharing information that they've gotten, that should be kept private and given it more broadly across the Internet, but at the same time if Lars, for example, has contacted Apple regarding a problem, and he knows they're working on it and they don't need more pressure, we might not want to contact them again right away.

Or he might say, please pile on I've been writing forever and, that kind of coordinated outreach tool was going to be done.

DON HOLLANDER: Yeah, so that's part of the measurement monitoring, I would think. And I would put Mark's name on there as well.

RICH MERDINGER: Done. And again, this was creating a paradigm and method for it, and that was by the January meeting in DC. Eighth item, Christian and Brent were going to establish a relationship include membership with [MOG]. And again, that was going to be done within two weeks of this date, by the end of the month.

Ninth item, establish a relationship with ISOC. And that could include membership, as my notes says I'm not sure if that's right? I didn't think so. Copy and pasted. Anyway, Don was going to handle that one and he is going to do so by the end of October.

And then there was a comment I added said to look into leveraging IPv6 materials that they may have. Don.

DON HOLLANDER: Yeah. So we also talked a couple of times about engaging with ISOC in terms of community outreach, in terms of using what they've learned in IPv6, learned in DNSSEC, to engage with Dan York, but also they produced a state of the Internet report last year, middle of last year. I call it the blue book because it had a blue cover, and it was really good.

It had lots of stories, lots of pictures, and that's the sort of thing that we talked about doing is lots of stories about how people are using, shifting to being UA ready and why they're doing it. And so that is sort of broad encompassing, thanks.

RICH MERDINGER: Great. That sounds like this is a little gem that came out of this meeting. Leveraging that relationship could be really good. Yeah, could be. Next item was the EA… Brent and Edmon

putting together an EAI report to the coordination group in January. Basically instead of coming up with dates for your timelines it was, what is the progress on your communication and you're putting forward the EAI this timeline as I referred to it.

Okay. The 11th item is a UA ready preliminary draft of guidelines for comment by Dennis by the 14th of January, followed by a one month public commentary summary by the February 14th, and then a month later, a final UA ready guide that needs to be completed.

I did not have a who for the UA ready commentary, the guide itself at this point at this point. I'm not sure that Dennis is the right guy, I think he is the right guy. I'll put myself down as well because I was alongside of him on that one.

DON HOLLANDER: And I would say, use, aim for the first draft for Washington, and aim for the second draft for Marrakesh, and try to have a gathering of some period of time in a room not unlike this to just focus on that. Does that make sense?

RICH MERDINGER: Yes. And I've got Dennis and Rich down for that second iteration in Marrakesh. 14th item, create a generic document for registries

and registrar readiness, scorecard. That's something that Don, you were going to talk to ICANN about.

DON HOLLANDER: I was going to ask ICANN to do that for themselves, and possibly as they do that, the registry registrar little working group that you've got already could use that as a template. Or work with them.

RICH MERDINGER: Said differently, that's what I was intending. I don't have a when down for that, for you, when you were going to speak to them about it. Understood, thank you. 15th item, define what cross-section and size of working group should be for the registry registrar team. That's… The idea was again that the registries and registrars are not fully represented in this room, and that there are other registrars and registries that you should care about UA, and they have systems that will need to be made ready as well, not just from the gTLD or North American perspective, but from a global perspective and across all of the different types of TLDs.

So we'll want to define what that working group could look like, and come back, by the end of the month, with a recommendation to the universal coordination group on who

that should be, who we should be calling out for membership of that.

DON HOLLANDER: So I've got the sense that you guys were going to use meetings in hallways this week to tap people on the shoulder.

RICH MERDINGER: We could tap them on the shoulder if we knew who we wanted to and why, what I would like to understand is the… [CROSSTALK]   What is the appropriate composition for the group? And then we'll tap… I don't want it to be a catcher's catch can, because we may end up with a distorted view, that's my recommendation anyway.

And then we do… And it just so happens that we deal, we work with registries all of the time, pretty broadly. We can be opportunistic about communicating with them immediately after the formation of what that composition looks like. We don't have to wait until we see them in hallways down the road.

15, define, that was it, wasn't it? Then 16, because I deleted one, we really only have 16.   Review scope and put forward a recommendation. And this is the one where I got, this was right at the end, so I apologize. For linkification. And I had Dennis, Mark, and ample time from Andrew on that one.

And I did not have a when down for that, I think were we going to come back later, that would be now. Now was when we were going to come back for the later, for the when. You can get back to me on that, okay? It has been a long day, and I'd rather leave it blank and then we have to come back to it then put something down that's artificial and be wrong.

So those are the 16 action items that I had. If there are others that people had takeaways, please share them with me now, or stop by Rich at Go Daddy dot com, you can get ahold of me. Is there a link to that? No. I'm giving you my EAI.

Okay, the geekiness is getting thick even for me now. Don, I'm going to hand it back to you for summary and closure, as you may want to which could include you saying goodbye, or more. It's up to you.

DON HOLLANDER: Thanks very much. First of all, thanks to Rich and Christian for chairing and keeping things running, and for people's active participation. And for those who are left standing, so that's really impressive that you made it through the day. So thank you very much. I think we got good stuff done. It's an interesting conversation, some kinky conversations, not so kinky conversations.

And Rich, thanks very much for taking the notes as to what we committed to do and when we're committed to do it. So that's really good.   We have a session tomorrow, the open public forum. Edmon is going to drive that. One of the things that we want to do is we'll, if you can remember back to this morning, there was a presentation that Christian did on what's happening with the UASG.

He went through… We issued a report the other day about, a written report, an update as to what's happening with UASG, and Christian went through that in slides, and Edmon and I will talk about that and get him to do something similar. And we'll probably take the budget slide out, because that's really not terribly interesting, I think, for people not involved.

Other than that there is a budget and we have that already. And we'll add a final slide indicating that this meeting gathered and we had 17 items, and we'll highlight some of them. 17 items. You heard from Ashwin that they can't count either.

We'll add some, we'll break a couple of them down. Whatever. So if you could email me that list, then we can create… And Edmon, if it's all right, I won't, we won't include all 17, but we'll just give some representative samples.

EN

EDMON CHUNG: Why not include all 17?

DON HOLLANDER: Because we won't have time.

EDMON CHUNG: No, no, no. I won't go through all of them [CROSSTALK], list all of them out so that people can [CROSSTALK]… You can highlight which ones that you want me to highlight.

DON HOLLANDER: Yeah, okay.

RICH MERDINGER: I will send that to you, don't worry, and I'll copy Edmon just in case there is an issue.

DON HOLLANDER: So tomorrow, we have, tomorrow's program is an introduction from Edmon, just reminding people why we're here. Talking about what we have done since Buenos Aries, talk about what we've done here, then we have Rinalia Abdul Rahim, who is a Board member, and she's going to, she's a Board member from ALAC, that matters but I don't think it does. And she is going to

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give us similar inspirational talk, short talk, similar to what Avri did this morning, as to why this matters.

And then we have a panel discussion, very much along with Dennis and Rich did sort of on looking at a specific industry, which is our industry, the registry, registrars, posters, and we'll have a couple of registries represented. We'll have a couple of registrars represented. Jeff Houston will be from the RIRs, and that's relevant because he's actually done that experiment and sees some of that stuff happening.

And Ashwin will also be on the panel. He won't be, there won't be slides for it. He'll probably, I think he'll be challenged [inaudible] not, but he'll talk through what happened. So the schedule currently has only 20 minutes available for that panel. So if we can compress the things leading up to it, I think that will be better.

And then when you get bored Edmon, or not, I mean there is a 15 minute Q&A session, and it could be that things, our next panel would be interesting enough that you'll probably run out of time, but don't fret. That would be my suggestion. And if there is no time for Q&A, then there is, then that's okay.

My view is I'm okay with that, because I think the panel will be interesting. And that's tomorrow. And then there is a session at the GAC on Tuesday that Christian and Edmon are going to

drive. And there is, we did the ALAC today, and I think that is all that we have specifically scheduled.

RICH MERDINGER: Well we do have a thank you to the Board for their support, etc.

DON HOLLANDER: That's right. That's a public forum, and Rich is going to draft that and circulate that. And then he'll deliver that on…

RICH MERDINGER: I'll just, he's not here, but Christian did most of that already, I'll give him the credit. I'll work with him and make sure we get it around, because he's out of town.

DON HOLLANDER: So I would just sort of like to go around and make sure that there were topics that you wanted to get, you expected to get covered, or you had hoped would come out that didn't get covered. That you have that opportunity now. Rather than call names, because I don't know everybody's names I'll just look.

The desk is clean? Yeah?

Lars? I am so excited that you're involved because you have good ideas, good work, and you've got all of those contacts

within Echo so that's marvelous. Edmon? Everybody is avoiding eye contact. George? We didn't talk about your project. So it is on the list that we were going to talk with Don and Elaine, I think we were the participants and I'm happy to add you, if you want, but at the moment it's just looking at the work.

And Lars, were you on that? Rich will tell us who is on the list, but George in LA offered to develop a little system, database, I'm not sure what they're called. App? Is that what they're called now? Where we could, we could record who we engage with, and where other people engage, they could just register as well.

So I think it's on the tape, from my perspective, it's still, the offer is still on the table, whether you've agreed to it or not, but…

RICH MERDINGER: I do now, yes. The place that I felt that that landed was the UA DNA discussion, because the DNA, there is a lot of this, it's an intersection of activity regarding awareness and, universal awareness as well as universal acceptance, and that's was in the intersection with that, where this topic landed.   I'm misremembering. I'll have to go to my more detailed notes.

DON HOLLANDER: That might be action item 18.

RICH MERDINGER: That's number 17.

DON HOLLANDER: Mark, you were quiet today. So, thank you all very much. I feel really positive about UASG now, and that's change for me for the past month. Thanks very much.

RICH MERDINGER: Anybody that knows Don knows what this meant. So thank you very much for all of your work Don. And everyone that did, not only showed up but stayed. It was fantastic. Thank you.

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