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BUENOS AIRES – Internet Coordination Update

Monday, June 22, 2015 – 00:00 to 00:00

ICANN – Buenos Aires, Argentina

ADIEL AKPLOGAN:

Okay. Thank you very much and welcome to this session that is mainly dedicated to hearing from our supporting organization and -- organizations from ICANN coordination ecosystem. This is the second time we are having a dedicated session like this since last ICANN meeting.

The objective mainly is to be able to also showcase all the very fundamental activities that ICANN has beyond the Internet governance and the transition that is taking a lot of our time these days, which is normal. But beyond that, ICANN also has a coordination role among the different stakeholders and communities involved in the DNS system, and mainly we will hear from the IETF that is in charge of developing a standard and specification that impacts the DNS system, from the NRO, made up of the five RIRs who are in charge of managing the number resources, and also from the ccNSO and the GNSO who are a very important actor in this ecosystem.

This session is very important not only because it will allow the stakeholders to update us on what is happening on their day-to-day activities, but also it gives us the opportunity to interact with them. Interacting with them, understanding how to engage with what they do respectively, because some of their activity does not happen during

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the ICANN meeting here but it is equally important for us to know what is happening and be engaged because we are all bound by a very important principle, which is the bottom-up, open, and participative process.

So how can we make sure that these bottom-up processes are very -- really participative beyond what happens during the week of the ICANN meeting?

So I would really like to see a very interactive session. Feel free to interact with them. We'll try to get from the different presentations, as well, issues that we can quickly discuss.

So we have one hour, and each presenter will have about 10 minutes to give us their update.

So I will start with Jari, Jari Arkko, who is the chair of the IETF, to give us a brief update.

Jari?

JARI ARKKO:

Thank you, Adiel. And indeed, I want to go through a little bit what we are working on at the IETF, and so if you are not one of those people who also goes to the IETF meetings and participates in our work, then you may have seen us here talking about IANA transition or the next-generation WHOIS protocol and a few other topics like that, but we actually do a lot of other things, so most of our work is elsewhere.

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We don't just deal with IANA, we deal with many, many technical topics working on the basic technologies behind the Internet.

And we have 128 working groups currently, out of which one is dealing with the transition, as an example, and the one on the next-generation WHOIS protocol.

I wanted to go through a few topics that are very important for us, and I mean obviously I can't go through 128 working groups but I can point out a couple trends that we've seen in the last couple of years that we're tackling in one way or the other, and most of these things are actually affecting multiple working groups or, in some cases, even the whole IETF or our whole technical work.

So I'm going to talk about the rapid evolution in Web technology, which is, you know, going faster and faster in the recent couple of years and seems to accelerate in the future as well.

I'm going to talk about security and privacy and some challenges around that, and then come back to open-source development in the end.

And the first thing that I want to talk about is the fast evolution in Web-based communication. I mean, obviously everybody knows that everything is on the Web but it's just amazing how many new things are put in there as well. Just to give you a couple of examples, I'll go through sort of what it means for the users and what we've done there from an IETF perspective.

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So the first one is that additional types of applications are being added to the Web platform, so -- so one of the things that we've been working on, together with the W3C, is real-time communication in browsers. We call it RTCWEB or WEBRTC. So basically it enables you to have like voice or video calls, for instance, directly in your browser without plug-ins, without applications, and this essentially opens up the space for many parties to have similar services that only, you know, entities like Skype can do today.

Basically, if you have a Web server, you can -- you can be a provider like that.

We also have worked quite a lot and will be working quite a lot with codecs around that, to make sure that we can actually transfer those media over the Internet nicely.

Also, a fairly big milestone was reached last February when we released the new specifications for the next-generation HTTP protocol, HTTP Version 2, which is a -- you know, from the user's perspective, it looks pretty much the same, and the programming perspective it's the same, but it's internally quite different. It enables you to pack more and more sessions within one connection and it's a far more efficient protocol from that sense.

And, you know, one of the success stories, I think, for the IETF, at least in the sense of being deployed quite a lot, on the day of its approval, it was representing 5% of Internet traffic. You know, maybe mostly due to some big players that decided to adopt it, but still, pretty significant. And now there's more, of course.

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But the Web technology is not just for us humans, for you and me to look at our screens and see something nice. It's also for other things. It's the basis of many applications that are using many different types of environments today in corporate or elsewhere. One, I thought, interesting application is that there's a lot of Web technology in the Internet of Things. You know about this.

Not all our devices around us in our environment will be having some Internet and communications and I.T. technology to save energy and communicate better and serve us better.

And it turns out that a lot of that -- those things are actually built with Web technology inside, so there will be some means of communication, so obviously radio technology, for instance, IAP runs underneath, but the applications are being built with the Web technology and it's particularly easy to connect an object and something in the cloud, an application and so-and-so media and, you know, many things are easy to connect using this technology.

I also see that like we have some things that are going on right now, but we're -- it's clear that there's more things coming down the pipe. There are some innovative ideas in larger reorganization of the protocol stack around the Web, so we're experimenting right now with the idea of adding security into TCP directly, as an example, and I would not rule out the possibility that we'll see -- or there are some discussions around reorganizing of the lines between -- like the TCP, TLS, HTTP type of protocol boundaries, and that, I think, is quite exciting.

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And the reason why we have this rapid evolution, of course part of it is that people want to have these new applications, or companies want to do new things, but it's also because the Web is such an easy platform to build on. Everybody knows how to use it and there are free tools available for its use and it goes through every network because everybody needs to use the Web anyway, so not -- firewalls generally don't block that traffic, as an example.

And of course not to forget, there's also the fact that the Internet, in some sense -- or Internet traffic, Internet applications, have consolidated a little bit so there's some fairly large players and some of those players actually have the ability to change both client and -- like on certain brands of phones or tablets, and then content on their servers, and this makes it fairly easy to change some of this technology if it brings some advantages, which these things that I have been talking about do, like faster ability to provide the results to the user.

The other thing that I wanted to talk about is security. Obviously, security for the Internet is a big topic and a hard issue.

We at the IETF are really committed to dealing with the communications security aspect of that.

I do want to remind everybody that that security for -- for Internet or for any things actually is larger than just the communications part.

As an example, if you're worried about, I don't know, criminals or surveillance activities or something like that, then you don't need to

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worry just about the communications aspect of that, is my communications secure as it travels the Internet, you also need to worry about that the other people on the other end of the communication are trustworthy, or their computers or their management.

Anyway, so we're quite committed to improving our part of this, and we got a fairly big signal or -- I mean, it was a big event for us to hear about the Snowden revelations and we started actually quite a lot of work at the IETF because of that or speeded up existing work, and it's been about two years now and we have had projects either completed or ongoing, revisions of two major projects, also HTTP and TLS, that do have tech security. From an HTTP perspective, the ability to put more connections in one -- one HTTP session allows you to use security more efficiently and doesn't take -- we don't take such a big hit by adding security. So it's been a big plus.

But we also have other things. We're currently working on technological DPRIVE that will make it possible to hide your DNS queries from the local network which you who deal with DNS may actually be interested in. But the change is actually quite significant for us at the IETF so we actually had a big discussion about this. Should we consider things like surveillance as a threat to the Internet. And we did decide that surveillance is just another security threat among, you know, all kinds of technical threats. All kinds of parties could be attacking your communications. We care about all of those, and it's difficult to give access to one party without that access to -- you know, if you give the surveillance agencies an opportunity to do

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something with your communications, tomorrow the criminals will know what to do with the same security holes, and then the day after, your neighborhood kids will also know what to do.

So there's only one way we can deal with this, which is to try to make the Internet as secure as possible.

But of course this is not easy, so one of the things that we're struggling with right now that -- as we observe this, and this is not just about the IETF, this is just like the world deciding that they need more security and they've been turning on security in their communications quite a lot in recent years. Not just because of Snowden but for many -- many, many reasons. You know, business reasons and just to protect their -- the -- their users.

So a larger and larger fraction of the Internet traffic is encrypted and this actually does affect a couple of things.

One issue is that if you have some kind of network management trying to prioritize traffic or you have, you know, simple things like caching, that actually gets, you know, either impossible or difficult if you move to a world where most of your traffic is encrypted.

And this -- this is an actual problem for many of the operators and the ISPs that are dealing with this traffic, particularly in the mobile space, so we're dealing with that, trying to understand what can we do, what kind of tools do we need tomorrow.



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We're having a GSMA and IAB workshop on this topic in September. The call for papers is open at the moment, so if you're interested in that, do join.

And the final -- third thing that I wanted to mention is that technology development is increasingly code-based and open -- the role of open source is huge.

Now, it's no longer the case that you can have a specification and then later someone develops a code and then that's deployed in the market. All of these things happen actually more or less at the same time in parallel. And the IETF, of course, has always been about rough consensus and running code, so this is not new to us, but it's still a fairly big change. It's a big change for other organizations in the world, other standards organizations. It's a big change even for us, because just the magnitude of the type of work done in this way is changing.

So we're trying to enable a world where we don't want to exist just as the standard specification organization but we want to connect the -- the coding even more than we have in the past.

One of the things that we're doing is having these hackathon events, so now when we meet at the IETF meeting, we don't just discuss the specifications, we actually do sit down and code as well, a couple of days of hacking together on a different set of topics. The next one is in the connection of our next meeting and it's actually quite popular, so if you're interested in coming and hacking with us on some piece of technology, then do join us.

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And finally, I just wanted to welcome everybody to -- to our work. You can participate over the net, obviously. Most of our work goes there. You can also come to our physical meetings three times a year. The next one is in Prague at the end of next month, and next year we will be coming here to Buenos Aires. I've been really happy to be here this week to see how it is.

So I think that's all I have. Thank you and I'll let the next person speak.

[ Applause ]

ADIEL AKPLOGAN:

Thank you very much, Jari, and thank you for enlightening us on this aspect of the IETF work and I'm very impressed by the amount of work that you are putting nowadays on privacy, security, reviewing even the protocol in the stack, and I will hope that we will have some questions that can allow us to see how this work of the IETF may impact what we do here. Thank you very much, Jari.

The next speaker will be Axel Pawlik, who is the chair of the NRO, so we'll have two presentations from the number community. We will have from the NRO and then from the ASO, which is the supporting organization. We think they're from more of ICANN, but I'm sure Axel will better explain the difference between the NRO and the ASO in his presentation. Thank you.

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AXEL PAWLIK:

Thank you, Adiel. I very much liked the closing slide that Jari showed. It was all very incomprehensible. I hope this is not quite the case. On the other hand, please then do ask questions.

Now, I'm here. I'm the managing director of the RIPE NCC and this year I'm also the chair of the Number Resource Organization, which is basically a non-organization. It is the RIRs working together to coordinate.

Why are we doing this in two parts?

The RIRs are basically running the secretariat for the policy development process, and also we do quite a number of diverse things between the RIRs. Some are very strong in outreach. Others do more training, coordination. Some do more measurements.

So I won't speak about all the diversity here. I'll speak about the things that we have in common.

And Louie will talk a little bit about the policy side of things.

You might have heard that we have run out of IPv4 addresses. By now, you probably have forgotten what they were anyway.

I do, however -- occasionally do get questions whether we would be able to give out some -- some more of them. And then we say, "Well, not really."

So the status of this among the RIRs is that AfriNIC still has some addresses left. Quite significant amounts there.

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APNIC, some. ARIN is pretty much scraping the bottle of the barrel at this time. So is LACNIC. The RIPE NCC has also some addresses left (indiscernible) to us of soft landing policy that looks forward to the future and wants to keep some small amounts available for newcomers to the ecosystem.

So seeing that we are pretty much running out of IPv4, of course we should all develop our IPv6 space services and roll them out, but of course what we also see is that there's quite some interest in trans- -- or policy-based transfer of addresses between RIRs' members within our service regions but also across service regions to other RIR service regions.

So we have a couple of RIRs -- APNIC, ARIN, and RIPE NCC -- who have by now policies -- terms of policies between the regions agreed. The RIPE NCC account is implementing it.

We have a proposal on the way being discussed at the LACNIC region and also, I think, AfriNIC is discussing it, but there's nothing really concrete coming out of there yet.

So (indiscernible) resource needs to be transferred. The more important thing is to say that the interest that the RIRs have in this is to keep the registries up-to-date. That is the most important thing. We are not interested in any commercial agreements between the parties of transfers there.

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I do apologize, I will talk a little bit about IANA stewardship transition, although we have heard quite a bit. I will skip one of the other slides here.

But basically the RIRs' communities have worked very, very, very hard to get this done on time. At the end of last year, having gone through all of the communities' meetings, we have assembled a team, the consolidated RIR/NRO stewardship proposal team, the CRISP team. We call them the CRISPIes. They have worked extremely hard over the end of the year, beginning of this year, disregarding any holidays or year changes. They worked hard to get a proposal together that is based on input from the wider communities. That proposal has been given to the ICG in January, and by now we are at the stage where we have a draft contract between the RIRs and ICANN on IANA services. We call it the service level agreement there.

The first draft was out and has been discussed.

Basically the process, of course, is that everybody goes into the CRISP team and then the -- we've seen that. I won't talk to that.

The idea in principle is that the RIRs together take over the oversight from NTIA over the numbers part here. Very, very straightforward, really.

One thing that is open here is a review team. We've seen similar review teams in the other communities' proposals as well. The idea is to give help to the RIRs to assess whether and how the -- the IANA services are being provided, whether they meet the requirements.

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So at this time, we have a draft charter for this review committee ready. It was published a little bit earlier today. Comment period runs until the 6th of July, so please have a look and comment on that.

The selection for the review committee will be done by method of each RIR's choosing. We've had some experience with that before. This will be finished by the end of the year.

The IANA service level agreement itself, the contract is basically based on the NTIA contract that is currently in existence. Just to make sure that we change as little as possible in the sense of stability and then rapid forward movement there.

It's in accordance with the principles that the CRISP proposal put on the table after community feedback there and some other, of course, vitally important provisions legally. Our legal team tells us can't do without them.

So, basically, the obligations in the draft are about IANA services from ICANN, the IANA operator, to the RIRs and then how do we deal with each other. This is basically spelling out what we are currently doing for so many years already. So that is very straightforward. There are, of course, other things that are also interesting. The review committee I mentioned before, trademarks for intellectual property right there, domain names, stuff like that. Public domains, status of the IANA number registries, those are things that we need to talk about outside of this particular contract. And we will deal with them.

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Community feedback, the first draft of the contract has been out. The comment period has closed recently. We have received all sorts of feedback from quite a number of people from the community, individuals, but also from the CRISP team themselves, from the APNIC executive council, from the ICANN board -- thank you very much for that -- and, like I said, many individuals.

The second draft our legal team is working on as our speak, more or less. We hope that we have the second draft out by the end of this week. We can't quite commit to that yet because we want to have a look at that; but that's the goal, at least by the end of the week. And then it will be published, and there will be some community feedback on that as well.

After that, we very much think that we are basically ready. We can go. That's the middle thing, the development of the SLA, on the slide. I think by the end of -- where are we? June? By the end of July, the second round of comments will have been absorbed in what we think is the final draft. And that should be used as the input for the negotiations with ICANN. So there shouldn't be much to negotiate about because we think it's reflecting the reality for the last couple of years already. So maybe in the month of July/August, we would actually be ready for the numbers part.

The review committee I mentioned, that should be assembled during the rest of the year. So by the end of this year, this will also be standing. So let's see how that goes.

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I'm fairly positive we are very committed to the success of the whole transition. Like I said, we think we will be ready within a couple of weeks and then we can -- we can move.

As I said before, any contract that we are discussing now should be not seen as an alternative to the NTIA. Our contract that is in place, it should be -- we should make it possible that it can be installed in parallel basically so when the NTIA goes away, we have something in place that is working already.

So priorities for us: Stability, continuity obviously. Transparency is very, very important to us, to all of our communities. It is very clear what we are doing, why we are doing this, and that it is based on community feedback and community will there. Of course, respect for the principles that came to the communities there in the CRISP proposal.

We have been asked recently a couple of times about ICANN accountability and seeing that the RIRs want to govern or be the stewards of the numbers part of the IANA process. How about RIR accountability? And, of course, it's all very easy. We are membership associations. We are accountable to our members. It is straightforward. But not everybody sees that and knows that. So we have already over the last year or so worked on an accountability framework, a governance matrix that we have now published on the NRO Web site for everybody to look at comparing the RIRs' governance models, how they work, how they're basically known.



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That might not be enough and, of course, anything anybody can improve. So we are in the process of preparing a third-party independently run accountability review of all the RIRs so that we see where eventually we find some holes and can improve those things.

And that's basically my presentation. I hear questions will be done by the end of the session. Thank you very much. Next?

[ Applause ]

ADIEL AKPLOGAN: Thank you very much, Axel. And I think we will let Louie continue.

LOUIE LEE: Thank you, Axel and Adiel.

I'm Louie Lee. I'm the Chair of the Address Council on the ASO. The Address Council is primarily focused on the number policies and specifically the global policies which are policies that affect how IANA and the RIRs interact with each other as far as number assignments, like I.P. addresses and ASNs.

Currently we don't have a global policy in the works. However, there are many number policies within each region. You should care because the number policies within the region does affect your region that you reside in and also where you're doing business.

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So you may want to take note on some of these policies that I would just summarize real quick up here for you. I will also touch on the ICANN board selection that the ASO is doing.

So, if you want to look at that really closely -- no, you can't. That's okay. I will summarize this for you. But this is a list of the number policies. It's just a snapshot of what's going on right now within the regions.

So to summarize, there are about 30 proposals in various states at the five regional Internet registries with 17 under discussion and one at last call. Eight are ratified but they are soon to be implemented. And there were four that were abandoned.

Now, of these policies, these are the various topics that these policies and policy proposals cover: Two having to do with the autonomous system numbers, one with the reverse DNS, also known as the in-addr.arpa. The more interesting ones probably to you today would be the ones covering IPv4 and with the transfers of the policies -- sorry, transfers of the number resources between regions.

Some highlights, in the RIPE region, they're soon to implement an inter-RIR v4 transfer policy. This would follow the policies that are already in place at ARIN and APNIC which allow transfers between ARIN and APNIC members.

So with the RIPE policy, when that one is in place, then resources can be transferred amongst the three regions.

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"Region of use" proposals at AfriNIC and ARIN would cover where, how you might justify your address request, whether you're using them mostly within your region, partially in region, mostly outside region, completely outside regions. That's -- these are questions that the communities are trying to answer for themselves how they want to govern their address use.

And v4 proposals for Anycast and critical infrastructure, namely the Internet exchange points. Critical infrastructure will be abbreviated as C.I. They are to possibly allow easier access to IPv4 numbers post-runout so that perhaps you may want to stand up some infrastructure that's needed just to get you over the hump, especially for things like exchange points where it would help a startup ISP get connected up.

You may reference these full proposals at the links included, and I believe these slides will be posted online soon so that you may just click on these links to reach these proposals.

And following on, if you would like to participate in any of these discussions or have any sort of input to them, you may attend the public meetings. There are 14 held around the world, and also you may participate via mailing lists.

The criteria for participation is very low in that you do not have to reside in the region that the policy is being discussed in. You do not have to be doing business in the region. It is just a matter that you have an opinion and that it could be heard on the mailing list and also at the meetings onsite.

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An update about the ICANN board selection, the ASO address council has selected Ron da Silva to serve on seat 9 on the ICANN board of directors. This announcement was made last month.

Ron will be replacing Ray Plzak whose term is ending at the end of the next ICANN meeting in Dublin, that is. So we're excited to be continuing working with Ron da Silva in this capacity. Ron has been serving on the Address Council for, I believe, about five years so far.

So any questions? I would like to extend an invitation real quick to attend our ASO workshop, which is on Wednesday morning. At the workshop, there will be some presentation from the CRISP team on what -- on the latest activities about the CRISP proposals. Thank you.

[ Applause ]

ADIEL AKPLOGAN:

Thank you very much, Louie and Axel, for giving those clarifications on the NRO activity and the ASO activity. We will take questions at the end of all the proposals.

So we will now move to the next presentation by Byron Holland from the ccNSO. I think you are doing it from your seat? Yes?

BYRON HOLLAND:

I'm going to mix it up a bit and stay seated.

Are we good? Best laid plans.

Okay. Can you hear me now?

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Like I said, I'm going to stay seated just to mix it up a bit. My name is Byron Holland. I'm the chair of the ccNSO, and also I am the president and CEO of CIRA, which is the Canadian, .CA, registry operator. I'm speaking here, of course, on behalf of the ccNSO.

And the ccNSO, just to provide a little bit of background and context, represents ccTLD operators who have voluntarily elected to become ccNSO members. And that's an important distinction for our organization because while there are slightly over 250 country codes in the world, the ccNSO represents -- those ccTLD operators within the ccNSO represent about 70% of the total number of ccTLDs in the world. That said, it also, when you slice it a different way, represents about 70% of the total domains under management by all ccTLDs.

And I make this point because it is important to note that the ccNSO is a voluntary body where ccTLD managers elect to participate in it and, therefore, also within the ICANN ecosystem as well.

Now, ccTLDs or the ccNSO occupy as a result something of a distinct space in the ICANN ecosystem. Many or most ccTLDs, which include all of the ccNSO members, predate the creation of ICANN. And we have as a group a wide variety of governance structures, which again is relevant to our interaction and relationship with ICANN, because some CCs are operated by national governments. Some are operated as not-for-profits. Some continue to be operated out of universities. And a very few have what would look like a for-profit business model.

So as a community, we are extremely diverse and it's this diversity in essence that has shaped our relationship with ICANN over time.

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Part of that diversity of governance models for CC operators means that there are almost no contractual arrangements with ICANN. So while there are 100 -- approaching 160 ccTLDs in the ccNSO, almost none of us have a contractual relationship with ICANN. A number of us have an exchange of letters or MOU or more informal arrangements. But it's important to note that generally speaking we participate in the ICANN ecosystem in general in a voluntary way as well.

And I think that really our relationship with ICANN is one that's really been built on an understanding of the nature of that relationship and a recognition of our collective history and the precedence. And it's certainly that unique history that, I think, permeates the relationship with ICANN today, especially on some of the really big issues that we're dealing with around transition and accountability.

Most of us -- generally speaking, we all develop Internet policy in our domestic environments. So in a sense, we are much like ICANN but inside our own countries. For example, in Canada -- this is shared with many of my CC colleagues. We develop policy and the rules and procedures by which registrars operate in Canada, or for the .CA space.

You know, we generally set the rules associated with anything to do with our CC and our relationship with the Internet community. So in a sense, we operate like an ICANN to a great degree inside our own -- inside our own countries.

That said, ICANN policy certainly does affect us, though we may not be a part of much of it. Issues like new gTLDs, clearly they don't impact

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us directly. However, the changes in policies are definitely impacting country code operators. Needless to say, when you add hundreds of new suppliers or hundreds of new registries into a given market, it impacts country code operators. And that changed global domain market is really -- you know, we can see has significantly affected growth rates of ccTLDs. And as a result many ccTLDs are looking at their current business models, their current budgets, their current operating plans and strategies for the longer term.

So I just raise that to make the point that we don't participate in ICANN policymaking at large, for the most part, but ICANN policies can certainly impact us and therefore many of us elect to voluntarily participate in the ICANN ecosystem.

But there are other issues that do directly impact us from the ICANN space, particularly issues around IANA. Issues like retirement, delegation, redelegation of ccTLDs would be obvious examples that, of course, would be extremely near and dear to our heart.

And as registry operators or registry managers, we also have a direct relationship with IANA, which is essentially the supplier of our most important resource. Names and numbers.

So in terms of important issues for CCs right now, really there is no more important issue than the -- what's happening with regard to the stewardship transition and the accountability, but the stewardship transition and the shape that IANA takes going forward is certainly something that we're paying absolute closest attention to. And not only are we paying close attention to it, the ccNSO was one of the

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chartering organizations of the CWG and of the CCWG. We have five members on the CWG, four on the CCWG. Co-chairs of each of those two working groups are ccNSO appointed co-chairs.

So we are absolutely deeply, deeply involved in those two issues which we consider some of the most important for the CC community.

You know, I think it's important to note that both of the working groups are really good examples of a bottom-up multistakeholder process, and certainly from time to time they get criticized as being too top-down, but I would argue, as somebody who is quite close to both of them, you know, they are really a good example of what -- of how a bottom-up organization can work effectively. And I just -- you know, I bring one specific point to bear, and that was the first proposal of the CWG that came out in December.

And much work had gone into it, of course, but the community gave very significant, meaningful, detailed, thoughtful feedback, and what we can see is the second draft proposal is substantially different.

Where the CWG, from the bottom up, collected that input and even with the work that they thought -- I'm sure they hoped at the time they were near completion -- had to look at all the inputs and feedback and recognize that they needed to make substantive change, which they did. And the proposal in front of the community now, I would suggest -- personal opinion -- is one that has listened to a very great degree to all of that feedback and input and reflected it back to the community in a way that, my sense, is generally accepted.



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So, you know, the multistakeholder model can work, we can see it happening live before us in those two working groups, both of which are of critical importance to the country code community because it deals specifically with our most important supplier and of course because what happens in the ICANN ecosystem is important, very important, to us.

Very related but probably lesser understood is the work of the framework of interpretation working group, which was a joint working group of which the CC community was a part of, and what it really tried to do and has successfully done was provide specific guidance on the interpretation of all existing and applicable policies and guidelines on delegations and redelegations, revocations and transfers of ccTLDs, and this strikes right at the heart of, you know, what it is to be a ccTLD and how they come into being, how they get retired, and potentially how they might be transferred from one manager to another manager.

And it was the result of -- or the outcome of probably four years' worth of work.

That -- that work and those recommendations were provided to the ICANN board earlier this year, and they will be taking up this issue at the board meeting later this week.

It is, without a doubt, one of the most critical issues, country code-related issues, that we have put before the board.

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So many not in the CC community might not be paying attention to that, but I can tell you it will be the number one thing we will be paying attention to at the coming board meeting, and because, like I say, it's almost an existential issue for us but it also has very specific linkages to the work that the whole community is doing today around CWG and accountability, in that the work of the framework of interpretation really provides the baseline understanding of all of the policies related to, as I've said, delegation, redelegation, how IANA functions from a policy perspective on those issues and operational perspective.

So the board, which my understanding is it's extremely likely to be approved -- I never say never, but we expect that to be done -- that is a critical issue for us upon which the work of the CWG, in particular, will be built.

So there's a very, very direct linkage between those issues, and we can see that even in the charter of -- of the CWG where those specific issues are actually carved out of the CWG charter in recognition that they're important but that the actual work was being done by the framework of interpretation.

So pay attention for that at the board meeting.

We in the country code community certainly look forward to the successful resolution of four years' worth of work there and creating the foundation of -- upon which the work of the CWG will continue.

So with that, I will wrap it up. Thank you very much.

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[ Applause ]

ADIEL AKPLOGAN: Thank you very much, Byron, for this explanation.

Very well appreciated. Because of the time, I will just quickly move to Jonathan to give us a --

UNKNOWN SPEAKER: (Off microphone.)

ADIEL AKPLOGAN: Okay. Wonderful. Yes. Over to you.

JONATHAN ROBINSON: Thank -- okay. Let me just -- you can hear me. Okay. Good.

Thank you, Adiel. Thank you for the opportunity to talk with you briefly about the work and give you an update on the work of the GNSO.

We've got here, first of all, a structure slide talking about the way in which the GNSO is organized, and I think it's important to give you that orientation and also to highlight for you something perhaps unique about the GNSO, as opposed to the other organizations you've heard about so far, in that the GNSO uniquely develops policy within the ICANN process.

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We are the body responsible for generic top-level domain name policy and we work solely within the ICANN structures in doing so.

The policy management is -- policy is managed utilizing the GNSO Council, and the GNSO itself is broken down into two houses. The houses are comprised of the non- -- the contracted parties house, comprising domain name registries and registrars, both of whom operate under contract with ICANN, and the non-contracted parties house, which is itself broken down into stakeholder groups made up of the commercial interests and the noncommercial interests, and then in particular, those -- those are broken down further into different constituencies.

You can see that the GNSO Council provides capability for liaisons, and we have active liaisons from both the ALAC and the ccNSO.

In addition, we have appointees allocated to both houses and one who is not allocated to a particular house that come into us via the nominating committee of ICANN, so that provides a degree of independence to the whole structure.

So I hope that sort of orients you in -- from a structural point of view of how the GNSO works before I talk to you about a few specifics in the update.

So our primary focus is on policy development undertaken within working groups which are open to participation by all. ICANN participants and others.

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And we work in a structured and systematic manner, and all of that is encapsulated in the Annex A of the ICANN bylaws and in a document we call the policy development process manual.

Now, critically, we -- whilst we are not confined to developing consensus policies, the backbone of the policy we develop are so-called consensus policies. Now, a consensus policy, with a capital C and a capital P mean something quite specific here, in that ICANN accredited registrars and registries are bound, contractually background, to accept and to conform to such policy.

So it's a -- it's a -- it's -- it's something which is quite specific that we are actually obliged to -- if -- once that policy is recommended by the GNSO to the board and adopted by the ICANN board, it becomes a requirement to be bound by that policy and that requires following the policy development process.

But of course we have other activities and you've heard a couple of times about the stewardship transition in particular, which is the most high-profile cross-community piece of work, but there are -- there are others that we participate in.

So specifically at this meeting, some of the key areas we are focused on -- and it's worth highlighting those -- are exactly as I mentioned a moment ago, our work in the cross-community working group on the IANA stewardship. We have a -- a piece of policy work that -- that's come -- come -- these are -- these are items coming to the GNSO Council on Wednesday for formal processing and ideally approval, and there is a particular piece of work that's of some interest because

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what's happened is during -- the most substantial policy, arguably, that's ever been developed is the new gTLD policy, which is -- which was something which took many, many years to develop and then to implement, but as that implementation rolled out and as those new gTLDs have come to market, it's become very clear that what was -- what was -- what was perhaps intended in the policy hasn't necessarily been interpreted, at least to the agreement of all, in the implementation.

So there is -- there's clearly scope for either improvements in the way we iterate through policy implementation and/or more effective ways of generally managing that whole policy implementation interrelationship and supplementary advice and information that may follow during the implementation cycle.

And so a working group has specifically been targeted with dealing with that and has come forward with three quite significant new processes in and around the existing ones, and that's coming before the council here.

We -- I'll also highlight a couple of others. There's been some work on a full policy development process to deal with the possibility of translation and transliteration of contact information, what many of you will know as WHOIS information. We've done some significant analysis through some preparatory work for further policy development work on the new gTLDs, as you might expect. And we've taken a lot of time to try and work more effectively with our -- with the other SOs and ACs and, in particular, one key area of focus at the

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bottom of the slide there which you see is that dealing with Point Number 5, our work in more effectively working with the Governmental Advisory Committee here at ICANN and one element of that is the use of a liaison.

There's a later session today dealing with new gTLD auction proceeds and there's a proposal initiated by the GNSO and supported by other SOs and ACs to start to develop mechanics as to how to handle those proceeds via the use of a -- another cross-community working group.

This is a sizable amount of money. It's currently sitting in excess of \$50 million. So clearly it needs to be handled responsibly and with due care, time, and attention.

So as we look ahead, there's been an ongoing focus over the last couple of years and I expect will continue on continuous improvement, including such basic principles as process optimization, improved collaboration across the ICANN community as I described to you before, and a point here which is described as assertion of critical role, but it's to ensure that policy development takes place within the GNSO and doesn't creep outside of the structure, which is designed to deal with it.

We've -- we, as many other components of the ICANN ecosystem, have been subject to an overarching review and that initial report from the independent examiner who was commissioned to undertake that review was published for public comment earlier this month and the comment period is still open, with a final report anticipated in August.

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We have a number of interesting developments coming forward, including the future purpose of gTLD registration data. This is ongoing work in and around WHOIS data. Clearly further work on new gTLD subsequent rounds. The new gTLD policy envisaged that it would be -- that the current round would be one of many future rounds, so there's some work to be done on that. And an upcoming review of the rights protection mechanisms which many feel are clearly key to the ongoing integrity of the new gTLDs.

So you can -- there has been a detailed policy briefing from the ICANN policy staff which I can certainly compliment and I'm sure many of you will appreciate. If you are interested in finding out more, just take yourself to that link and there's a succinct description of the current policy work and if you'd like to find out more and get involved in any way, please link to the GNSO portion of the ICANN Web site and we'd love to hear from you.

So I hope that was sufficiently brief and gave you a quick oversight as to the structure and current activities, and to the extent that there's time, I'll join the panel now for questions. If not, you're welcome to track me down in the corridor or at any other later meetings during the next few days. Thank you very much for your attention.

[ Applause ]

ADIEL AKPLOGAN:

Thank you very much, Jonathan. And that is the last presentation of our panel and we'll open the floor now for questions for all the five



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panelists. I would just, before doing that, say that there will be a session on the IETF 2016 that is going to happen in this region tomorrow morning in Catalinas at 8:30, so if you want to know more about hosting an IETF meeting or have more information, you can also join that session where I'm sure Jari and others will be there.

Same for the ASO. That is going to have a workshop on Wednesday. 8:45. Same thing.

I'm highlighting those two workshops because usually those two communities have more activity that happen outside ICANN events than here, but I know that the ccTLD -- the ccNSO and the GNSO also will be having several sessions during the week.

So open for questions. We still have about 10 minutes for questions for the panelists.

I do have one question for you, Jari.

You mentioned about HTTP2 as one of the standards that has been now approved. Can you briefly, if you can, just give the audience some specific characteristics that can be of interest for a user of the Web in general in this new standard?

JARI ARKKO:

Yeah. So from a user's perspective, nothing should change at least from a functionality sense. The primary benefits of this new technology is that it's internally more efficient. So one of the things it does, it's capable of multiplexing multiple discussions within one

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stream of data and in TCP. And, therefore, you can have -- you can fetch multiple parts of the page, if you will, at the same time. And if one of the parts is stuck somehow, you can get the data as soon as the other ones. Then that doesn't block the rest of the transaction which means that you can actually reliably use one session rather than multiple. That's the primary benefit we also have.

I would say it is basically a binary protocol instead of textual, and we use compression for header fields so you only need to send one thing once. It adds to the efficiency.

And you may think it's a small thing, just a little bit more efficient. But it kind of adds -- particularly like I mentioned, if you tried to use security and you have to use multiple sessions, then you have to set up the security multiple times and that's bad. So the protocol is capable of using this connection is going to be more efficient.

I don't have very good numbers in terms of what the actual benefits are. Obviously it depends on the case as well. But I can dig those up, if needed.

ADIEL AKPLOGAN:

Thank you very much. This is very useful. So I think if there is no further questions, we will stop here. We would like to thank, once again, all my panelists. And would like as well to have more feedback from participants of this meeting on how we can make it more useful for you during the coming meeting. This is the second time we're having the session. We plan to continue to have them at the same

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time to improve them and address or touch on topics that will be for cross-interest to all the supporting organizations and all the other organizations as well. Thank you very much. And that's it. Thanks.

[ Applause ]

**[END OF TRANSCRIPTION]**