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HELSINKI – ASO-NRO Public Session  
Monday, June 27, 2016 – 13:30 to 15:00 EEST  
ICANN56 | Helsinki, Finland

FILIZ YILMAZ: Okay, everyone. Thank you for coming to this session, the Address Support Organization Address Council Plenary Session. We will start in a couple of minutes, so get comfortable, get seated.

Oscar, you can already take your seat at this stage. You're a presenter. No running away.

Hi. Do you want to join us as well?

Okay. I guess we're gathered now, more or less. My name is Filiz Yilmaz. I'm the Vice-Chair of the Address Support Organization Address Council.

Yeah, we have a few people here that will give us updates. Our agenda involves both representatives from the Numbers Community, as well as we have our NRO Chair, Oscar. And we have a guest speaker at the end, Lousewies. She is the NomCom-selected Board member, and she has been very involved with the Numbers Community over the early days. So we wanted to hear her perspectives and have a bit of engagement through her impressions.

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

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Can we advance the slides? Yes. Right.

My name is Filiz Yilmaz, as I said. I'm the representative of the RIPE region. This is the policy meeting of the new ICANN meeting structure, right? ICANN is known for domain names and the policy developed around it. But we used to say, and our old Board members used to say as well, that ICANN as a name has two Ns, and that one N at the end is Numbers. The policies around numbers are developed through certain policy development policies, which you do not see exactly on the ICANN fora because they are developed through regional mechanisms really, but more processes around the globe. We are the link to the ICANN community for these communities, really grassroots communities.

I'll talk a little about this; what the number policies are, what we're talking about here, and also how they're developed. Then I will leave it to my colleagues to go through their regions and give instances and latest developments on what is being discussed in the latest times. I think we will spot some common points there.

If we advance – yes. So who are these people? Who is the Numbers Community? With the Numbers Community, you will be hearing certain acronyms – we are ICANN, anyways – like RIR (Regional Internet Registry) communities, Numbers

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Communities. We have our own understanding of abbreviations, too.

We are organized around the globe within five regions, each region under the service responsibility of an RIR. So you will be hearing Regional Internet Registries and RIR communities.

Communities are people who actually develop policies. These people work for organizations – ISPs, IXs, and enterprises. For example, my day job is at Akamai Technologies. I'm paid through Akamai, but I am a volunteer in the Numbers Community, and I take part in the RIPE community region, mainly. All my colleagues have similar situations here.

But then there's the RIRs (Regional Internet Registries), who coordinate assignment, allocation, and registration of resources. Which resources are these?

Hello. Hi. Oh, there is more. Thanks. Great.

These institutions, these organizations, are legal organizations. They have legal bindings, and they coordinate with their own communities. They implement the policies that their respective communities have developed.

So if we can advance the slide – yes.

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What are we talking about with this regional policy development? Thereabout – again, as I said about numbers – allocation of Internet Protocol and Autonomous System numbers (AS numbers and IP numbers). As you may have heard, we are not going to get into the technical parts of this, but they make the Internet work, these resources.

The policy development of these? The need came already, decades ago. It was recognized. RIPE itself has an almost 30-year history in this kind of working. The need stems from the region; the specific needs of the region, the business requirements, the grassroots practices. And there are regional differences. This is also why we have five different regions. The way ISPs work, in a way, and how their needs are addressed may not be exactly the same as how ISPs operate in Europe. So there was a need for that regional touch.

It's also important to keep those logistics within your grassroots communities. Your [own] support. You're in the region. You're [of] the people.

When I was developing these slides, I actually found this from an old presentation of mine: the lifecycle of policy development. Basically, there is a need. These resources are registered and assigned according to policies that the community develops. But

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these policies also follow the technological developments and business requirements.

So it's a cycle. You have some kind of policy. You have a rule. Let's call it a rule in simplest terms. There's a purpose. Then, something happens. The requirements change, and then the community feels the need: "Okay. This doesn't apply. This doesn't address the current needs. So we need to change that." There is discussion and consensus, and the implementation lies on the RIR.

Often, the RIR is the Secretariat for these communities. They don't develop the policies. They implement the policies developed by their communities.

And then it's a cycle. You come back again. Times change, and then you review the policies to see if they still satisfy the needs of the actual times.

If you can again...

We will see that, yeah, during the regional updates, the topics change according to the regions' needs in five different communities. But also, the policy development processes and the mechanisms in detail also are different according to the needs of that region and how they communicate and how they gather together and what kind of tools they use.

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There's that regional zest in there, but the principles are shared. Those principles since the beginning have been communicated all the time. It's open. So what you need is actually to be part of these communities. There's no membership registration, per se. Nobody will allow or disallow you to take part in that. All you need is your interest. If you're interested in the policies around these resources, which are in fact [commonwealth], right? They are part of inheritance of this world; it belongs to not only one person, but they are for all of us – you can take part.

Often what you need is just an e-mail address. So you don't even have to be in a meeting, a specific meeting, a face-to-face meeting. In RIPE's case, for example, we don't even make decisions in face-to-face meetings. Face-to-face meetings are just another facility that is out there for people to communicate and collect feedback. Final decisions are always going through the comments that are collected in the e-mail mailing lists.

Transparency is an important principle, again. Here comes the documentation. Since the beginning, the policies and the development [inaudible] the mechanisms, plus what the policies actually entail. They're all documented out there. You can even see the history of development, what happened from one time to another and what's changed.

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And, again, the bottom-up process – and this is exactly what we’re talking about, why it is regional: because you really get into the grassroots there – ISPs, IXPs, business people who are actually affected through these policies. They are there making these policies and taking part in there.

The decision-making is based on rough consensus. This is an interesting topic since the beginning of time: what is consensus? It’s often confused with voting. It is not voting. The best way I could have explained this in the past, and still can explain what consensus is, especially a rough one, is that whatever the discussion point put there is coming from a need. First of all, you recognize that. Somebody made a proposal because they need a change. The current policy has a hole, or it doesn’t work for them.

Once that proposal is put, the rest of the audience, the rest of the community, is asked: can you live with this change? If people can live with this change, then it is consensus. They might not like it, but for the greater good, if they feel it is okay or others to benefit from it, that is what we call rough consensus.

Yes, please, Carlos. Next slide.

Then we’ll shift from regional to global, when things become global. All right. Global policies are about mainly the distribution

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of these critical resources – IP addresses and AS numbers – in blocks from IANA to the RIRs.

That is global because all the RIRs are subject to the same kind of policy. That is important. And they need to be the same and identical.

The way they are developed is still regional. Every community discusses it in their own region. If they can come with a relatively similar policy – the A to Z, the input to output relation is the same – then it goes towards the facilitators, and that is the NRO and then the ASO AC, where we advise the ICANN Board. Eventually it gets implemented by ICANN as the body holding the IANA function. Of course, there are being changes around there, too, but the principle will stay the same.

Next slide, please.

Who we are, finally. We are 15 people right at the moment sitting at the Council. We do not make policy. We are the bridge from our regional communities towards ICANN, mainly for engagement.

We also select two individuals towards the ICANN Board, Seats #9 and #10. We advise the ICANN Board where necessary, regarding resource allocation policy in conjunction with the RIRs and the NRO. And we coordinate the global policy side, as you



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have seen. Regionally developed policies, before they can become global, need to be going through some checkpoints, and we are involved in that checkpoint.

We are 15 people, three coming from the five different regions. You can see our faces and names in that link.

Next slide, please.

So this is the intro. If you have any questions right now about how we are developing policy in our regions, like I said, it's a regional matter. All you need is an e-mail address. Come and talk to us. We are here for the entire week, as well, until Thursday. But the main thing is being involved through there, where the policy is developed, and that's the region.

So if you are having business in Europe, go talk to RIPE representatives. If you have a business in the States, Northern America, go talk to ARIN colleagues. If you have a business in the rest of the world, like Africa, AFRINIC people are here. Fiona is here. Mark – Fiona just walked in. APNIC and LACNIC as well.

I will just pause here if there are any questions or comments. We want this to be interactive, but maybe after all it's very clear what is being said.

No? Okay. Next one up is Mark.

MARK ELKINS:

Thank you for this. Membership statistics – sorry. My name is Mark Elkins. I'm from the AFRINIC region. I'm an ex-Board member of AFRINIC. I'm now on the ASO as the AFRINIC Board representative. I live in South Africa.

We recently had a meeting just a few weeks ago in Botswana, but back to the statistics: 48 new members so far, and growth is continuing to increase.

Next slide.

I'm going to go through the first few slides quite quickly. 6.4 million IP addresses allocated so far this year, and we're getting close to the end.

Next slide, please.

We still have a good number of resource members, which is increasing, obviously, year by year. Incidentally, we also have 350-odd legacy space holders still left in the AFRINIC region.

Next, please.

AFRINIC is now the only RIR who can still allocate address space according to additional policies. We have basically .7 remaining before we get down to the last /8. We expect the soft landing

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policy to come into effect probably late towards the end of this year.

We are focusing on things like IPv6 deployment, though. We provide free training. There's an IPv6 test best, etc., etc.

Next.

We have a number of policies which were discussed. Policy Update number 1. I'm actually the sole author of this policy, which was to allow for the transfer of resources in and out of the region. Again, it's been sent back to the general mailing list for further updates and comments.

Next.

We have two soft landing proposals, which are in conflict with each other, which makes for interesting times.

If we can go to the next slide.

These are the essentials of this particular policy. It is under discussion still. It was basically opposed by members of the other policy.

If we go to the next slide, we have the other policy. Although they have very, very similar endgames, there is a soft landing policy already in place, and both of these are trying to modify certain aspects of the original soft landing policy that we have in

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place. So at the moment, that is the one that is in place for soft landing at the moment. Whether any of these two will get through, I'm still not sure. I'm also a co-author of this particular policy.

Next slide, please.

There is another policy for the auditing of Internet number resources so that, if people have resources which may or may not be being used properly, as we are the last Regional Internet Registry to actually have space, it does allow for perhaps potentially nefarious activities in acquiring space from us, which is the general reason for this policy, I believe.

Next.

One of the previous policy people put forth this policy, which is to allow the resource transfer of blocks of IPv for addresses within the AFRINIC region. It was well-received at the meeting, but it was also proposed a bit late in the day, so this is under discussion. I have a strong feeling that this will be passed by the community, probably in November. But it was well-received.

Next.

I think this is the last policy, and this is inbound transfer policy, where we're hoping that we can take from the rest of the world without having to give back. I understand that a similar policy

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was done in LACNIC and was pulled back eventually. Anyway, there is inbound policy transfer to do this. I believe that this would fit with RIPE but probably not ARIN, which is probably our target at the moment. As dubious as to whether this will actually, even if it passes, be useful to the AFRINIC region.

Next.

Training stats. So far we have one a number of trainings. Obviously while we were in Botswana, there was training there.

Next.

And they'll be some training in Johannesburg relatively soon. We have our IPv6 certification program. I understand this is relatively unique amongst the RIRs. There is a test bank of a large number of questions, and at the end of the day, you actually get a certificate for completing it. So these would be tests, questions, that you would actually go through while being moderated. You would be in sort of a classroom environment to make sure that no cheating, etc., happened. We're hoping that that will be very successful.

Next.

Basically, lastly, our next AFRINIC meeting is in November. It's in this horrible location, a horrible little island in the Indian Ocean. You don't want to go there. It's a beautiful place: Mauritius.

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I think that's me. Next. Thank you very much.

FILIZ YILMAZ:

Thank you, Mark. One remark over there. I think we are starting with AFRINIC just because of the alphabetical order among the RIRs, so you were the first one to go.

I just want to make a remark. You mentioned a lot of transfers as a keyword in the current policy proposals. I think that will be a key in the other presentations, too. Can you just explain in two minutes, one minute if you want, what soft landing policy was for originally and what is being changed now?

MARK ELKINS:

The end of IPv4 address space globally has been looked upon a bit like the sinking of the Titanic. No matter what happens, it's going to go down. So everyone has been rushing around, moving the deck chairs, rearranging what can happen to give us more time with IPv4.

One of the things that four out of the five RIRs has done is institute something called a soft landing proposal, where a portion, if not the whole, of the last block of IP address space they got from IANA is treated differently from all other previously allocated address space in such a way that perhaps address

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space is kept available for late entrances into the market, etc., etc. That would be the regions' soft landing proposal.

Does that answer?

FILIZ YILMAZ:

Yes. I know we are here in a very closed environment, together with a lot of Numbers folks, but there are few new faces I'm seeing. So for their benefit, I wanted to get out a bit of our own terminology and have an understanding of what the general goal here is.

Thank you. Thank you. Let's move on. I think next is on APNIC. Tomohiro?

TOMOHIRO FUJISAKI:

Thank you, Filiz. I'm Tomorhiro Fujisaki from the APNIC region. Here I'll introduce – oh, sorry – recent APNIC policy activities. As many of you know, APNIC also has two meetings in a year, and these policies are discussed in the [inaudible], many on the first day.

Here I introduce three policies recently discussed. Proposal [105]. This policy proposal is to register more detailed others [inaudible] database, but, yeah, this policy did not reach consensus, and was withdrawn by others.

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The next two policies are introduced in detail in the next slide.  
Next, please. Yes.

Proposal 114 and 113 – this was proposed at the same time. And Proposal 114’s purpose is to modify the AS number criteria. This policy modifies the eligibility [or] criteria for AS system numbers. This policy proposed to remove the multi-home requirement.

Proposal 113 is to [hold] the IPv4 address. This proposal extends the criteria for the [inaudible] IPv6 address assignment. Current is this policy removes some criteria. Current criteria is multi-homed or interconnected with other ISPs and the [inaudible] alphabetize the received addresses in six months. Both policies reached consensus and have been implemented already.

Next, please.

In the APNIC meeting, we discussed not only WHOIS policy proposal, but the potential policy change. These three potential policies were discussed in the recent APNIC meeting.

One is improving the APNIC WHOIS data quality. Actually, as many of you know, the address community had this [assignment] WHOIS database, and unfortunately, currently this database is not so perfectly accurate. So we are discussing how to make an accurate WHOIS database.



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Next is IP [inaudible]. As many of you know, there are some commercial services that address your location. At the last APNIC meeting, we discussed what APNIC [inaudible] WHOIS database can do for this service. Also, [inaudible], we discussed IP addresses [inaudible]. Actually, current IP address policy was targeted to the ISPs, so maybe IoT and [inaudible] service will need the policy. So we discussed this issue.

Next, please. Next slide.

This slide shows the recent discussion in the APNIC region. Unfortunately, country policy discussion in APNIC is not so active, so we are trying to increase the interest in the policy activities.

Here I introduce two activities. One is policy [inaudible] program. Here, policy [inaudible] to engage the local community to this address, develop address policy development. Another is policy deployment process. And the session we recently held in the APNIC meeting, [that this year] to introduce the policy deployment process and the policy proposals in the local [inaudible]. As many of you know, APNIC had many, many communities, and they have local [inaudible], so it's very important.

Next, please.

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This is the status of [inaudible] and the recordings of the meeting can be heard from this URL. If you have interest, please visit this URL. Thank you.

FILIZ YILMAZ: Thank you, Tomohiro. I will follow up with LACNIC now. Ricardo, I believe? Yes, you are next in line.

UNIDENTIFIED MALE: [inaudible] ARIN.

FILIZ YILMAZ: Oh, ARIN. I'm very sorry. I'm very sorry. I didn't mean to. My A-B-C is not being good. Right. Go ahead, Jason.

JASON SCHILLER: Recent policy developments in the ARIN region.

Next slide. If you go back one slide, please.

I didn't want to bore you with particular policy numbers and the individual details of the different policies. Instead, I want to talk about the two main topics that are under discussion that all these policies are about. The first is justified need versus an open market, and the second is policy simplification.

Next.

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The supporters of justified need basically believe that the RIRs have a role in providing stewardship and that the number resources are a shared resource for the community and that they need to be conserved and used efficiently. And they should be equally available to those who need them.

Number resources have been given out fairly based on justified needs since the RIRs have started, and now that the ARIN free pool is depleted, resources are scarce, and stewardship is more critical than it's ever been.

There's concerns that an open market would concentrate IP address in companies with the deepest pockets, with services that make the most revenue per IP address, and not a single competitor in a market segment could have more IPv4 addresses, and therefore outlive all of its competitors in that market. This would reduce competition and provide an unfair competitive advantage.

Next slide.

The other side of the coin is that the people that support an open market basically feel like an open market is the most efficient way to distribute IP addresses. Only people that need IP addresses would buy them. Supply and demand would set the price properly. The Internet resources would continue to be available to those who are willing to pay for them.

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There's also some concerns about cornering the market. The supporters of the open market feel like you really couldn't corner the market or get enough address base to manipulate the pricing to your advantage.

And there's a belief that the justified need really made sense when ARIN was giving out the addresses from the ARIN free pool, and they weren't charging specifically for the resources. But now that the free pool is empty, we can simply use an open market to allow the IPs to get distributed.

They also note the fact that people are transferring IP addresses out of ARIN policy. Some organizations are buying a future in addresses, where they will pay someone who's holding addresses to continue to hold them for them, and then, when they have justified need under the ARIN policy, transfer in addresses.

There's also some leasing arrangements, where some people will continue to hold the IPs but charge monthly fees for another organization to use them.

There are also just transfers that are done outside of the ARIN policy. These are not reflected in the WHOIS database.

The biggest argument for an open market is that the value that ARIN provides is uniqueness and registration of the resources,

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and, because people are making transfers outside of ARIN policy, they're not being reflected in the WHOIS. This is a problem because now the database is not accurate in terms of who is actually using the addresses.

Next slide.

Policy simplification. This basically comes in a couple variations. The first is a separation of transfer policy from the normal ARIN allocation and assignment policies. Today, the transfer policy references a lot of the requirements that are in the ARIN allocation and assignment policy.

One of the approaches is to try to separate those two apart. What that will enable us to do is more easily simplify the transfer policy without affecting or interfering with the ARIN allocation and assignment policy.

The idea also is that all of that text will be in one place, so there's no referential – there's no going back and forth to try to figure out what other requirements to transfer and address.

There's also an effort to try to make the process more predictable, and, finally, an effort to loosen justified need or remove it all together.

The third piece of it is, is IPv4 effectively done at this point? The ARIN free pool is empty. They're virtually not making any more

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allocations and assignments. There's a very long waiting list that potentially will take any addresses that become available.

So can we just remove the IPv4 policies altogether, or can we simplify them and take out some of the text regarding particular corner cases?

I have some slides next about the actual policies that are available. You can follow that URL to actually read the proposed policies, and there's also an ARIN 37 policy report which details the outcomes of our previous ARIN meeting.

I've got a few more slides that actually detail the policies, but I'm not going to go into them at this time.

Next. Yeah, these slides are just here for your reference to look at some of the recent policy developments.

Next.

FILIZ YILMAZ:

Thank you, Jason. I guess that was your cue from – sorry. Thanks for the little ring work. Right. Now, this time you really you, Ricardo, for the LACNIC update. I wonder if you're going to use the word “transfers,” too. [inaudible].

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RICARDO PATARA: Yeah. Thank you, Filiz. My name is Ricardo Patara. I am the ASO AC representative from the LACNIC region.

First slide.

There's some information Filiz already mentioned, also every RIR. We have policy being discussed in the mailing list. LACNIC, same thing. [inaudible] mentioned that the next LACNIC meeting will be in San Jose, Costa Rica, on September 26<sup>th</sup>-30<sup>th</sup>. It's the second LACNIC meeting this year. The first one was in May.

Next slide.

Some of the recent discussions. We had discussions about IPv6, and also, as Filiz mentioned, the IPv4 transfer and some proposals regarding the termination phase. LACNIC had its IPv4 pool depleted completely in July 2014. After this date, LACNIC has two pools. The first one allows allocation up to /22 in six months. When this pool is finished, the next one will be in place that would allow only one /22 to new organizations. This is the termination phase we have in the LACNIC region.

Next slide.

These are two recent proposals that were approved during this LACNIC meeting in May. The [inaudible] completed the last call period and is now at the Board for [inaudible]. The first one is to remove a limitation. When end users' organizations request

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IPv6, now it's limited to a /32. Once this policy proposal is in place, they will be able to request larger blocks if they can just [file] for them.

The other one is also to remove some part of the requirements for IPv6 allocation for our ISPs. There were some documents that the authors and also the community saw that were not very important in order to identify the need for IPv6, so these documentation requirements were removed, according to this proposal. And it's implemented.

Next slide.

I also mentioned here some policy discussions that were presented but not approved during this last LACNIC meeting. They are in the discussion process, again, in the mailing list.

The first one is to allow a new type of organization. When an ISP is trying to request IPv6, this new type of organization would be governmental ISPs because, as per the author's view, currently this type of organization could not request larger blocks based on the text. So the author would like to have a new type of ISP identification in the IPv6 policy.

The next one is to remove criteria for IPv4 allocation. When ISPs are multi-homed, they have more than one upstream provider. The requirements are easy compared to the case when they



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have only one upstream provider. According to the author, there are regions with small ISPs only have on option of upstream providers, so the things have gotten complicated for them to request IPv4 allocation.

Next slide.

There was also discussion to create a new IPv4 pool for the termination phase, especially reserved for critical infrastructure operators. Currently, this type of an organization can request IPv4 from the termination phase, but there are other things that would be valid. You have a special pool only for this type of operators. So this is something that's in discussion also in the region.

Next slide.

This last slide is just information on other topics that were already discussed in LACNIC. Some of them are already in place. One of them was to increase the size of one of the pools that I mentioned before, the pool that allows allocations up to /22 in six months. Initially it was /11. As LACNIC was receiving IPv4 address from IANA from the recovered pool – part of this address pool was only reserved for new organization, so the authors thought that maybe it would be valid to move part of this address space to this special pool. So this is implemented now.

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There was the IPv4 intra-RIR transfer, so allowing transfers inside the LACNIC region. This policy was already in the text, but it was inactive. So this proposal was to activate these policies already place since last March.

Also, related to transfer, there was a proposal to only allow IPv4 transfer of blocks that are allocated for more than three years to allow speculations of new allocations.

Next slide. I think this is it. Thank you.

FILIZ YILMAZ:

Thanks, Ricardo. Finally, I'm turning to Nurani for the RIPE update before we turn for the implementation phase to Oscar. Thank you.

NURANI NIMPUNO:

Thank you. My name is Nurani Nimpuno. I work for Netnod, but I'm here representing the RIPE region in the ASO AC. I'm here to give you a little update on the policy developments in the RIPE region.

As Filiz has already explained, this is an ICANN policy meeting, but this is not where the IP address policy takes place. They take place in the regional communities. I thought I'll just put this slide up here because it's a little bit confusing for those who are not

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familiar with the RIPE and the RIPE NCC and what the difference is between RIPE and RIPE NCC.

The RIPE NCC is actually the Regional Internet Registry, simply the Secretariat for the RIPE community. But it is in fact the RIPE community who develops policies that apply to Internet resources – IPv4, IPv6, and AS numbers.

Next slide, please.

Just like others have explained, these policies guide the usage of IP addresses, and they're done in working groups. As Filiz also explained, although we have these face-to-face meetings twice a year, all the discussions are always taken to the mailing lists so that anyone can participate in the discussions, whether or not you can come to the meetings. There's actually even now a new way of interacting with these discussions that I'll get to.

It's important to understand that, although the RIPE NCC is a membership-based organization, you don't have to be a member to participate in these policy discussions.

Thank you.

I really like the categorization that Jason did for the ARIN region. I could say for the RIPE region that there's a similar division of discussion points, so to speak. One is transfers. For this, it's important as well, for those of you not familiar with the

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numbers, the management of IP addresses, to understand that IP addresses in the past were not sold and bought the way domain names were. So it was considered a common resource that we should all share and manage.

Clearly, now that we're more or less out of IPv4 addresses, the transfer policies are there to make sure that we strike the right balance in managing these last resources. A big focus there is also making sure that the registrations in the public databases is correct.

I would say that the next hot topic in the RIPE region is how we manage these last resources. Just like ARIN and APNIC and LACNIC, the RIPE NCC are now down to their last /8, so that's a last 16 million-chunk of addresses. Before this happened, the RIPE community said, "We need to then change the policies to make sure that the last chunk of addresses are distributed in a fair way and lasts as long as possible, so to speak."

Interestingly, at the last RIPE meeting, which took place in May, there were two contradictory proposals. Currently, if you are an LIR, which is a member of an RIR, you can get one /22. That's 1,024 addresses. And that's it. You'll get no more, no less, and that is what you need to use to survive, so to speak.

This first proposal, 2015-05, actually proposed that a member of the RIPE NCC could get a new /22 – that's another 1,000

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addresses – every 18 months. In fact, there was another counterproposal, in some ways, called Locking Down the Final /8 Policy, which argued the opposite, that you should only have one /22 allocation, regardless of how that has been received.

These two proposals were discussed, and then it was decided to have a general discussion about how we best manage this last /8 that the RIPE NCC holds. There were no decisions to change the current policy, but I think this still means that we will have many of these discussions in the coming meetings as well. Have we struck the right balance? We need to make sure these addresses last as long as possible and give new entrants the possibility to run their businesses.

But at the same time, these are the very last IPv4 addresses we have, so matter what policies we make, we will eventually run out.

I'd say the last category of discussion topics was really about database registration accuracy. For example, there was one to include a [inaudible] policy on the legacy addresses – the old addresses that were allocated a long time ago – and also introduce a way of authenticating objects have been registered in other Internet routing registries. These are databases that register routing information that people then use to send traffic across the Internet. So those were those.

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It might just be interesting to know that, across the region, this is an indication of who participates in this policy development. Finally, I just wanted to mention that, since the very, very early days, all these discussions in the RIPE community took place over mailing lists. They still do, and for some reason, some of us are still very fond of this way of discussing.

But it's also very encouraging to see that the RIPE NCC is trying to find new ways to allow new people to interact with the community. So this RIPE forum is a web-based interface that interacts with the mailing lists, but it's a little bit more modern for you young folk out there. You know who you are.

Next slide, please.

And it looks a little bit like this. So it gives the option as to how you want to participate. You get pretty pictures and little bit more color than a text-based e-mail. I know some of you are very uncomfortable with that.

Okay. Well, that was it from the RIPE region. Thank you very much.

FILIZ YILMAZ:

Thank you, Nurani. Yes, there are some [inaudible] service [inaudible] communicate with forum introductions and mailing lists being combined with forums and meetings. And there is

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now the implementation side. So the community develops policies. We discuss topics. We tell sometimes contradicting stuff to our RIRs on how things should be done or what we think. Then they end up with having to implement these in a workable way.

At this point, I will leave it to Oscar to tell us how they manage to do that.

OSCAR ROBLES: Thanks, Filiz. This is the NRO update. How can I control the slides?

UNIDENTIFIED FEMALE: [inaudible].

OSCAR ROBLES: Okay. Next one, please. I didn't pay attention to that. Next, please. Thank you. This is what I've been talking about in the few minutes. Next.

The NRO is a lightweight, unincorporated organization. It aims to coordinate the work among the RIRs. It is run by the Executive Council, which is composed of the five CEOs of the RIRs. Most of the activities are carried out by the coordination groups.

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Next, please. These are the areas where we are trying to focus for the past months. So far, we have defined coordination groups for the engineering, which is the ECG, and the Communication Coordination Group, also, and the Registration Services Coordination Group. We had in the past the Public Affairs Coordination Group.

Next, please.

Currently, the Executive Committee is composed, as I mentioned, by the five CEOs of the RIRs. I am the current Chair of the NRO EC. It is on a rotational basis. Since 2013, we have a permanent Secretariat, and it is run by German Valdez. Also, the activities for the Secretariat are supported by one of the registries. This year, it's ARIN – and the coordination groups that I was mentioning before.

Next, please.

The NRO finances are very simple. For the NRO, most of our expenses are depending on the contribution to ICANN which is permanent at \$823,000 U.S. annually. That includes already the new SLA. That won't change with the new SLA. Of course, the IGF contribution, the communications among the different coordination groups, and the NRO EC, and the staff costs for the Executive Secretary.



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The budget is shared proportionally based on the revenue by every one of the RIRs. Recently, last year in 2015, we established a joint RIR Stability Fund, which consists of some pledges made by the five RIRs. It aims to contain any financial increases in one of the RIRs, in case there's some changes that may prevent that registry to have access to financial resources. We define the rules under which that registry may have access to those resources. You may see the policies for the use of this fund in this link.

Next, please.

One of the main jobs of the NRO is to coordinate reports from different topics, like the coordinated statistics for the five RIRs and the comparative policy overview.

Next, please.

The governance matrix, the different practices to elect Board members, the Bylaws for every RIR, the regional and PDP policy development process, etc.

We have also included RIR accountability questions and answers in this link. We also conducted, for the last 12 months so far, a joint RIR independent accountability assessment. That helps us to identify areas where we want to reduce some risks to the accountability and transparency processes. Very soon we will have a public report for this accountability assessment.

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Next, please.

Since you know, the five RIRs worked together to develop a joint proposal. At first there were discussions among the five different regions, and then the [inaudible] created these integrated principles that led us to work in the SLA.

Finally, the SLA was discussed during all these months and accepted by the NRO and ICANN. This is going to be signed in the next hours on Wednesday with ICANN. But that will be in place until the IANA and the Department of Commerce finish its former relationship.

Next, please.

The NRO participates in different forums to deliver some of the messages as RIRs or to conduct our work. Last year, we participated at the IGF in Brazil. We also supported the IGF with 100 [KUS]. We keep NRO [booth], and we developed some workshops and support other IPv6 best practices forums.

Last week we had the [short] presentation at the OECD Ministerial on the Digital Economy, and also with the Ipv6 topics. At this moment, we're working on preparations for the NRO participation at the 11<sup>th</sup> IGF, which will be in Guadalajara, Mexico.

Next, please. That's it. Thank you.

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FILIZ YILMAZ: Thank you, Oscar. I have a question before I open the floor. For our final speaker, I'll move to Lousewies. We keep hearing this transfer policies, and we have some CEOs also there, sitting. Paul Wilson, I'm addressing you now. So don't make me repeat the question.

As RIRs, I'm thinking maybe not as NRO. Is it on the NRO level or RIR level? But there should be some kind of preparation now as transfer policies are being developed in various regions. Do you have some insights to share with us as an example, if you would like to? Am I putting you on the spot now?

PAUL WILSON: Yes.

FILIZ YILMAZ: Come to the mic.

PAUL WILSON: Yeah, this is not a Dorothy Dix, is it? I actually missed how you introduced the question, so I'm not sure what you're asking. Is it about coordination of transfer policies amongst the RIRs, or?

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FILIZ YILMAZ:

Right. Yes. Not coordination, but in every region so far, we have seen in the reports that RIR communities are discussing transfers within their regions and between the regions. So I'm guessing, as the RIR staff, you are monitoring these developments because if they get accepted, it will induce some implementation responsibilities on the RIRs. So I'm just asking if there is preparation other than just one [during] now.

PAUL WILSON:

Well, luckily we've had a quite long and slow start on any kind of major quantity of transfers, particularly RIR transfers, because over the years, we've had one RIR, and then the next and the next, run out of IPv4 and then institute transfers. Then we've had the process of inter-regional transfers only occurring firstly between our own and APNIC, and now with RIPE NCC as well.

So, yeah, there's been a long process of planning, of design, or working out what would be the stages of improved implementation of transfers and automated implementation of transfers and reducing any time downtime involved with Reverse DNS resolution, for instance, or WHOIS lookups, and importantly, RPKI as well. So at the moment we can't say we've got a single button transfer that makes all of that happen in one go, and that's actually quite a long way away. Whether or not we ever need it will depend on how the right of transfers might

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increase in the future. It's pretty low now, and [I don't really know] what the expectations of the community are.

I hope that helps.

FILIZ YILMAZ:

It does. I think this is a good example of the manifestation of how the market changes and then the policy developments in the regions recognize those changes and respond accordingly. So I just wanted to use it as a showcase, that while very technical resource-related policies may be diminishing nowadays because there's not much happening at the technology level, but on the business side there are changes, and that is still going on and having an influence on the policy development.

PAUL WILSON:

If I could just add, in case we actually did end up in situation where there was a high volume of transfers being conducted between any pair of RIRs amongst the five, it would be quite a challenge. That is something that we are preparing for in some sense, an according to I think what we think the likelihood would be.

Amongst the RIRs, there are several coordination groups of staff who communicate regularly. In particular, there's an

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Engineering Coordination Group that really looks after the engineering, particularly of RPKI. That's one of their inter-RIR challenges at the moment. And there's a Registration Services Coordination Group. Both of those groups have been meeting and discussing over the years, actually, as I say, as this situation is developing and we're seeing more and more. So it is an active coordination amongst the five of us now. Thanks.

FILIZ YILMAZ: Any questions? Yes, there's a remote participant. Carlos is also monitoring the remote participants. Thank you.

[CARLOS REYES]: Thanks, Filiz. There's a question from [Lou Hang] in the Adobe Connect chat. "Where is the joint RIR Stability Fund being kept? In each RIR's account with a mark of stability fund, or in a joint bank account somewhere?"

OSCAR ROBLES: It is kept in every RIR's finances. It is just a pledge. In case there's a need to use it, that would be directed to the RIR requiring those funds. But it's in every RIR.

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FILIZ YILMAZ: Any further questions at this point? Oh, Nick you would like to – you sat too far away from the mic, so now...

NICK: Sorry. Just a couple of things. One, first of all, thank you for pushing the RIPE forum. We work very closely with the working group Chairs in developing that for the community.

The second thing I was wanting to ask APNIC. You have your policy champions. I was curious to know about the community involvement and how you find and vet these champions and how successful the program is. Thank you.

TOMOHIRO FUJISAKI: Thank you for asking, but, actually, the APNIC Champion Program just started. Yes, we are now considering how to implement or how to proceed with that program. Actually, at the last APNIC meeting, some implementation report – sorry. Just that it's a not so concrete example that we have just now.

FILIZ YILMAZ: Same topic, right? Yes, please.

OSCAR ROBLES: Last year, LACNIC implemented something similar to the APNIC Champions. We call it the Policy Shepherds, which aims to help

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and support other ideas to produce a policy but are not that knowledgeable in the process. These persons are appointed from the previous moderators or Chairs of the policy development processes. We have four or six of them in the community, and they are volunteers to help others to produce the policies.

It's working so far. It's working very well so far.

FILIZ YILMAZ: That's great. Thank you for creating a queue by the mic.

UNIDENTIFIED MALE: [inaudible]. I have a simple question for Mark. As you say, AFRINIC is the only region IPv4 left. As we know AFRINIC actually have the smallest IPv4 block. So do you have any plan to prevent the people from going to AFRINIC to grab your IPv4 and put it into a sale market?

MARK ELLISON: As far as I am aware, apart from the existing policies on a needs basis, etc., there are no additional policies or anything else to stop space from being grabbed. So any legitimate request should go through just fine. There's nothing else special at the moment.



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UNIDENTIFIED MALE: Yeah. My question is because AFRNIC generally comes in later, so if the Ipv4 is taken off and used in another place to sell it, then it's not very good for AFRNIC/Africa to develop IP addresses to use. So that's my question.

MARK ELLISON: I'm sorry. I'm not catching everything you're asking.

UNIDENTIFIED MALE: Okay. Got it. Do you want me to explain?

FILIZ YILMAZ: I think the question is – and correct me if I'm wrong, [inaudible] – IP number usage in Africa has been lowed compared to the other regions so far, so in an event of transfer policies, Africa is one of those regions where they will still have addresses, and the other regions will not. So do you have a different focus in your policy development for that, what will happen for the Africa region, for the interest that you will receive from other regions?

UNIDENTIFIED MALE: Yeah.

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FILIZ YILMAZ: Is this part of your discussions, or are you just looking into how to...

MARK ELLISON: It's not really being discussed, except there was the one policy about properly investigating any suspicious previous allocations or assignments to organizations that could therefore be audited properly. But there's nothing apart from that to better slow down or stop or vet any applications.

Otherwise, I'm not a host master, so I can't really answer that question. But I know that the host masters at AFRINIC are taking longer and longer to process applications because they're doing a lot more checking.

UNIDENTIFIED MALE: Okay.

[RON DA SILVA]: Different topic.

FILIZ YILMAZ: Yeah. I guess there's a response to that.

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[RON DA SILVA]:

No, no, no. Not a response to that. Different topic, if that's okay. I've seen the ASO involvement here in ICANN for a number of years, trying to identify what a good engagement model is for this group of folks to participate and have impact. I think there's a great topic that is at hand, and unfortunately scheduled concurrent with this session.

But nevertheless, there could be some follow-up, and for this [last year's group of folks to consider], and that is, especially light of this whole conversation around IPv4 depletion and how that impacts consumers and end users and providers, actually, operating, and getting universal acceptance of v6 in place.

So there's this whole discussion underway in ICANN about universal acceptance, and it's all about strings; funny different characters, different languages, different new top levels, and how that will interact technically with protocols and applications.

I think just as important is the acceptance of IPv6. This is probably a great intersection between this community and the broader Names community. I think a shared goal, which is how we make sure in the same way new strings are being accepted that Ipv6 is being accepted.

So I would encourage this group to consider finding some way to formally participate and impact that activity. Thanks.

FILIZ YILMAZ:

Thank you. Great feedback, Ron. On the floor I heard the same thing. In this meeting, since it is the first meeting with this new format, I think we are all a bit trying to find what's going on where and how this is going to happen. So hopefully next time we will do a better job altogether. Thank you.

With that, I will turn it over to Lousewies. She's an ICANN Board member now, for a while already, and NomCom-elected. She's been a politician in the past, and she's very interested in the Internet and technology as well. She's been showing a lot of attention to our topics recently, so we took the opportunity to invite her here to hear her perspective for the time she spent with the Numbers Community. I'm really curious as to what I will hear.

She masters those speeches without [slides], so please go ahead, Lousewies.

LOUSEWIES VAN DER LAAN: Thank you very much, Filiz. I'm really, really honored to be here, I have to say, and it's wonderful not just to get the update from you guys but also the way that you're building bridges with people who don't necessarily come from the Numbers Community.

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I was elected by NomCom in October and I totally don't come from the Internet world at all. So as you can imagine, it was quite a transition. The way I tend to describe it is it's like landing on an alien planet. Then it turns out there's different planets on the planet as well, or different species and everything else. So it has really been fascinating.

I joined the Board in October with Ron da Silva, and with Lito Ibarra. I said, "Where do I start with all this technical stuff going on?" and they both said, "Oh, you have to start with the Numbers because A) they're the most important and B) they have the nicest people." So there we go. So I have been doing that.

There's of course, besides just my personal interests, the formal relationship that you mentioned already. The ASO appoints two Board members. Kuo-Wei and Ron are here, and the replacement Kuo, Akinori, is right there, who has been elected by you guys.

There is another formal relationship, which is that the ASO also appoints someone to the NomCom, which appoints the NomCom members of the Board. So there's quite a lot of power that you have to influence the leadership and the Board.

There's something much more informal, which I think is actually in many ways more important, which is that of course the Board

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is there to, besides help run the organization and steer the CEO, serve the community. It's something that I don't know exactly how it's been done before. But I think that the key thing that I see in this new Board is that this is going to be taken extremely seriously.

One of the key ways of doing it is not only to meet each other three times a year at this big ICANN members, but precisely for Board members to go into the community, into your ecosystem, to go to the RIPE meetings, to go to all the different meetings. We can't all fly all over the world all the time, but we should definitely try to make an effort, especially in our own region, to find out what's going on and to learn these subject matters.

Now, rather than me explaining what I've tried to learn and then probably mess it up and you think, "Oh, she needs to learn a lot more," there's one thing I've really noticed which I think is important, and this is because I have a political background. I engage a lot with governments and with inter-governmental organizations and with politicians.

I knew that I didn't know a lot about the technical way the Internet is run. A lot of politicians either don't know or don't care, but they know even less, especially know that I've been catching up a little bit – virtually nothing – about how the Internet is run. And that is something extremely dangerous

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because politicians are faced every single day with pressure about security, about terrorism, about pedophilia, about everything that happens on the Internet. It can be business related. It can be security related.

But these are serious questions, and if they don't know how the Internet is actually run at a technical level, because they're not engineers, then they're going to use a sledgehammer to try to fix one little thing, and it's going to ruin the system.

One of the things I've been trying to cross-communicate – planet politics, where I come from, need the technical expertise of people like you to explain how they can actually solve the problem without going too far. A lot of this is legitimate, but I also admit that sometimes it will not be legitimate. Sometimes a government knows exactly how the Internet works and will use whatever – some so-called terrorist threat – as an excuse to shut down the opposition or to take down critical Twitter feeds. Of course that will happen as well.

But the more that the technical community is out there explaining, “Well, if this is the problem you say you want to solve, this is actually the way you can do it without bringing down the system or without doing more damage or ruining the things that make it work – the interconnectivity, the openness,

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the freedom; all the things that we stand for.” That will make it much harder for these governments to follow that agenda.

So I’ve been at these meetings and saying, “Look, you guys. You need to engage with politicians. You need to engage with governments.” Then you get a lot of, “Uh, well…” Just as your planet is new to me, a lot of I would say people I’ve met at the various RIRs are not really keen to do this and say, “Well, our politicians don’t understand, or they don’t care.”

But my plea to you is to keep trying, because this is going to get worse in the sense that the pressure on governments and politicians to get more control over the Internet has been increasing and it’s going to keep on increasing. Unless we make sure that, within this multi-stakeholder model but mostly also within the outside world, who knows nothing about how these things work, if we don’t get all their voices in, then that can actually damage the kind of Internet that we stand for.

One of the personal things I’ve taken on is to try to build bridges between Planet Internet or Planet Tech – whatever you might call it; Planet Geek – and then Planet Politics/Planet Government. I think that is really going to be crucial if we want to keep the Internet working the way it is.

So that’s what I wanted to say. Of course, I’m available for questions. I know I have a difficult name – Lousewies. The



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advantage is that, once you learn how to spell it, you can easily find me on Facebook, on Twitter, on LinkedIn. But you can also come get my business card. What? No, yes you can. I put a pronunciation guide on the ICANN wiki. Also, I try to available.

I want to thank all the Numbers Community for being so incredibly welcoming and warm and patient and explaining again what a /22 is and how it works and explaining again why this is important. I hope to take a quiz after my three years and see if I actually learned it well.

FILIZ YILMAZ: Any comments? Remarks? We have eight more minutes specifically for Lousewies. Am I saying that right?

LOUSEWIES VAN DER LAAN: Super.

FILIZ YILMAZ: Yeah? Okay. Or for the entire panel, even to the audience out there?

WILFRIED WOEBER: Wilfried Woeber, also on the ASO for the RIPE region. I'd like to really comment on your last contribution. It's also my personal experience over the years that there is really a point in trying to

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cross the bridge and to try to understand the vocabulary, the background, the pressure, and the expectation of these different and sometimes separate parts of our world.

The one thing that's the reason why I'm standing in front of the microphone and consuming your time: one of the things that I found is that, in trying to make that exercise successful, you have to find the proper layer, let's say, or the proper point of attachment, because if you just talk widely and broadly about politicians, they tend to come like the birds in spring and go back in autumn. And then you start over again.

I think it is one of the advantages of our technical community that there is some sort of stability around. My experience in that comes mostly over the last couple years from interacting with our government of our little country, Austria, with regard to security and Internet management, not from a political level, but from an operational and security level.

You have to build this mutual understanding and trust. It's sometimes difficult to find the layer where the stability is there, where the interest is there, and where it is useful to spend the effort. I've seen a couple of things where people tried to get in contact at a very high level because this seemed to be the proper point to interact. But then you'll start over every other year or something like that. Just for consideration. Thank you.

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LOUSEWIES VAN DER LAAN: I think this is a wonderful contribution, and I would just like to point out that politicians come and go, usually very quickly, but there is layer underneath, which is the civil servants, who tend to be quite stable in many, many countries. I think, to build up relationships there, especially if in your own country there is a multi-stakeholder model and you have ISOC meetings or IGF meetings or whatever, to make sure that that's the place to meet. Once you build up those relationships, then once something happens, it creates a piece of legislation or some politician shouting something. You already have the contacts to go there and say, "Hey, this is what you don't need to do, or, if you want to solve this problem, you can do it this way."

The second thing is: don't underestimate what you can do in public. When I was an elected member of Parliament – and I was elected to the Dutch Parliament and to the European Parliament – if I would be dealing with an issue and I would read a very good newspaper article – it could be technical one saying, "Well, the European Parliament is dealing with this legislation. This is a problem they're trying to solve. I am a technical expert and would recommend A, B, and C" – the first thing I would do is call up that person and say, "Can you please come brief me?"

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I think this is a way also to reach out, but it has then got to be written in a way that non-techies understand it. But that's easier to do. This is just a great way to enter the policy debate. Before you know it, you'll be on T.V., explaining to the politicians what they need to be doing. That's exactly what we need: to get some experts into the debate.

LOUIE LEE:

Hi. Louie Lee. Thank you very much for coming. We get a fairly regular request from the ICANN Board, from GAC governance on how they can help with various things, like IPv6 deployment. "Should we do a mandate?" Do you get a sense of how the message is being received, what message is being sent, or how it's being interpreted, and what they are doing, if they actually take the advice of, say – just an example: one way, maybe a government can say that, for its own purchasing, all new equipment must support IPv6 and for some definition of support, whether it's in hardware or software or whatnot.

Do you get a sense that any of that advice is being taken, received, understood in any way, if that's actually working?

LOUSEWIES VAN DER LAAN: The short answer is I don't know. The long answer is that I think it differs greatly per country. And not even every country is in the

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Governmental Advisory Committee here, which works together with ICANN. Sometimes you would have one person who then has to be the government person for the Netherlands of whatever.

So this is a huge, huge workload. The people who are involved in ICANN may not always be the ones who are then at technical level trying to work the governments there. But I think it's a wonderful question.

One of the ideas of this policy forum, having a B Meeting, is precisely to cross-fertilize between the different silos. I think this is exactly the kind of question that you guys should be asking the GAC. You'll have a joint meeting with them at some point? Well, then maybe at the next B Meeting, this may be something to do.

I just came from a meeting this morning, which was basically a technical briefing for the GAC, where people were explaining to them how domain names worked. It was just a discussion about having country codes in the second level. Some countries think that is an absolute disaster and should be forbidden and that country codes should be only for countries, even at the second level.

Others are saying – the Netherlands, for example, have this wonderful example of de.nl – “de” being the German country

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code, and DE also being a Dutch coffee company, [inaudible]. It's never been a problem.

But then it's nice to get the technical people together with the governmental people and saying, "Hey, is this really a problem or not?" This is precisely the kind of place, ICANN, where we can start doing this. Then you can ask the question to the people who actually know.

FILIZ YILMAZ:

Thank you. Just a short notice – thank you – for the answer. We have only two minutes, and probably we have to clear out the room. So if you can, keep it brief.

CRAIG NG:

Very quickly. Craig Ng, APNIC, but speaking for myself. I just want to say, Lousewies, thank you very for coming, and thank you very much for your support. Speaking for myself and having worked on the SLA, I just want to say how truly appreciative we are of the Board's support through this whole process and how grateful we are that we have finally reached where we have reached. So thank you very much.

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LOUSEWIES VAN DER LAAN: I think all the credit for the SLA goes to Ron over there, so I'm just going to bat that right over there.

UNIDENTIFIED MALE: Hi, Lousewies. I'm [cheating]. I'm Dutch as well, so I actually know how to announce it. No, I don't get brownie points for that one.

Thank you for your honest feedback, as one alien to another shows the way. I would love to be able to educate me some civil servants and politicians. If only I'd know where to find them in a way where I don't get immediately written off as some sort of badly-organized lobbyist. If you could show us some direction in that sense, that would be highly appreciated. Thank you.

LOUSEWIES VAN DER LAAN: I think that's great. This of course is going to be totally different at every national level. I think you really blend in pretty well. No pony-tail, no beard, no shorts. Because this kind of stuff scared civil servants. They're like, "Who are these people?" It is about learning each other's language and trying to blend in, and wherever I can personally help to build bridges in the Netherlands, I will. But it's going to take a lot more than just one country or one region. This is something we have to do globally and we'll all work together. And maybe keep on being in touch

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and exchanging experiences are good examples of how we can build the bridges.

FILIZ YILMAZ: All right. One last remark. Maria, go ahead.

MARIA HALL: Thank you very much. Maria Hall. I am a member of the Board of the RIPE NCC. That's why I'm here. [inaudible]. I just want to say that I was a former Swedish rep in the GAC. I was engaged in the RIPE NCC and the RIPE community in 2004, when I started.

I have to say that RIPE NCC is doing a great job, so I just want to say thank you for doing this because you have the Coordination Working Group, which is actually a forum for trying to interact between governments and the technical community.

And obviously you have this round table meeting, so there are many ways you can make platforms or forums to interact between these sectors. So you're doing a great job. Thanks.

FILIZ YILMAZ: Thanks, everyone. Maybe at the next ICANN meeting we need to find a forum to talk together as well, like you said.

Thank you. Thanks, everyone, for your time and being here until the [bitter] end.



**[END OF TRANSCRIPTION]**