
CR - ASO AC Workshop on IP Addressing Activities

Wednesday, March 14, 2012 – 13:30 to 15:00

ICANN - San Jose, Costa Rica

Louie Lee:

Sorry for a late start. There's still a portion of us addressing the GAC at the moment. But we will attempt to get started here, if I can work out how we do this. Here we go. Okay as you can see from the title slide, John Curran is supposed to be addressing the group, but I will do it on his behalf until he arrives.

This is our agenda for today – about the ASO; the ASO Review Report; global policy update; regional policy updates, which will be given by the ASO AC members from the individual regions; and the Internet Number Resource Status Report; IPv4 free pool exhaustion; and then an update on outreach and education activities. I would offer, for anybody interested, to ask questions along the way before we move onto the next topic.

So, about the ASO. The ASO is the Address Supporting Organization inside ICANN. It is a function performed by the Number Resource Organization, which is formed by the five RIRs around the world, which are Regional Internet Registries. This is an ICANN supporting organization just like other SOs you've seen around. The purpose of the ASO is to make recommendations on internet number resources, appoint seats nine and ten on the ICANN Board and appoint individuals to the ICANN body, such as the 2012 NomCom which we've put

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Hartmut Glaser in and the SSR Review Team Hartmut is also in, and the WHOIS Policy Review Team that Wilfried is in at the moment.

The ASO Executive Council is made up of the CEOs, the Chief Execs of the five RIRs. This makes up the NRO Executive Council. And the office rotates annually in that this year the Chairman is John Curran, from the ARIN region, secretary Paul Wilson, Treasurer Aidel Akplogan and other members are Axel and Raul. With us this week are John, Paul, Axel and Raul. Adiel had not been able to make it this week. I'm not sure if he is on the phone remotely though at this time. Does anyone know?

So what is the NRO? This is a Number Resource Organization. It's a way for the RIRs to cooperate and to present as one voice. This is formed to protect the unallocated number resource pool, the free pool as some of you may hear. It's for promoting and protecting the bottom-up policy development process. And by bottom-up policy development we're talking about all the way from end users, ISPs, business constituencies, law enforcement; they all participate in the policy development. And it is a focal point for internet community input into the RIR system. And as I've mentioned it does fulfill the role, responsibilities and functions of the ASO in ICANN framework.

As you can see by the graph, this is the chart here, this is the five regions. And ARIN, while it looks like it's just US and Canada, it does cover 22 economies, including the Caribbean Islands. I'll give you a moment here. LACNIC covers the Central American and South American regions. And welcome to the other ASO and other interested parties. And if John would like to continue on I'd be happy to run the slides.

John Curran:

I'll take it. Okay, good afternoon. I am John Curran. I am CEO of ARIN and I am, this year, the Chair of the ASO. The Chair of the NRO which means the NRO is the RIRs working together. When the RIRs work together within ICANN, we have an agreement with ICANN and the NRO acts as the ASO within the structural organization. So you can refer to us as NRO or ASO; it's fine.

Okay. So, the RIR structure of the system that you have here is, the regional registries all administer address space. That address space has been historically allocated from IANA to the RIRs. The RIRs in turn allocate it to service providers, ISPs. In the case of APNIC they also recognize national internet registries, which in turn have members of themselves. Next?

Okay. The NRO is actually, while we operate within the ICANN structure as the ASO, we actually are self-funded; meaning the RIRs all contribute to that. There's a formula that establishes the contribution based on the amount of resources in each region. The expenses for 2011 are divided by the percentages on the screen here. AfriNIC, APNIC – AfriNIC with 4.1, APNIC 27, ARIN 18, LACNIC 6.8, RIPE 33.

We then take NRO expenses and allocate it to the RIRs respectively. Our expenses are fairly modest, and the single largest line item is a contribution to ICANN. We recognize that ICANN is important and has an important role in the internet number registry system. Okay, the ASO has another function, which is where global policies are coordinated. And that's done through the ASO Address Council. It's a function performed by a body we call the NRO Number Council. It has

15 community members, three from every region. In each region they elect two of the three members and the RIR appoints the third member.

It's an independent body and separate from RIR Management and Board. It's made up of members of the community and its job is to oversee the global number resource policy work, to appoint two directors to the ICANN Board, to serve on various ICANN bodies as requested as is the policy coordination function, and to advise the ICANN Board on number resource matters. Here's the list of the ASO AC members and you've already met Louis Lee, the Chair. We also have vice-Chairs and it's a good group; they're very effective. Thank you.

ICANN Board selection – okay so right now we have seat nine up on the ICANN Board. And the process starts back in November where there's a nomination phase, and then there's a comment period on the nominations. Then there's an interview phase, then they select and then that selection gets announced in June. This year the candidates are Eric Brunner-William, Martin Levy, Bill Manning, and Ray Plzak who holds the seat presently.

That concludes the introduction to the ASO; any questions? No? Wonderful. Independent review of the ICANN ASO. One of the things that happens, according to the ICANN Bylaws, is that advisory councils and supporting organizations should go through a periodic independent review. The agreement between ICANN and the NRO calls for the NRO to establish its own review procedures.

We've actually, to the extent possible, worked with the structural improvement committee that oversees those reviews to try to make our process fit in as well as possible to ICANNs process. We actually had

discussions earlier this week to try to figure out how we should handle the independent review. So we actually had an RFP last year, a request for proposal, which was awarded to Items International, a Paris-based consultancy, to perform an independent review of how well the ASO does its job.

They conducted numerous interviews. They collected comments that were submitted. They attended both RIR meetings and ICANN meetings soliciting this input and they've actually now produced their review report. Next slide. So, the review report has been published, it's on the ASO website. And it's available for people who want to look at it.

We have a sort of conundrum. The NRO would like to know what the community thinks of the report so we can figure out what recommendations and what we should do with each. But the ICANN review process also calls for public review of the report, and so we were wondering how many review periods we were going to have. We've decided that we will put the report as is out for public comment in ICANN's new refreshed public comments process. We will indicate, the NRO will send a message saying that we are actively watching this, we welcome all comments, we'll direct our communities to comment.

And then in the reply period we will post our recommendations regarding based on what we see come out on the comment period. The entire package will then go to the structural improvement committee which will then figure out how it then sends it to the ICANN Board. So this is the process we're going to follow. The report is available online now. And the comments period should be opened up very shortly, in the next week or two. Any questions on that? Yes, Mr. Mueller?

Milton Mueller: I wondered if at this meeting you're welcoming a discussion of the implications of the report. It's a lot of interesting issues raised by it and it's sometimes better to do things face to face than just filing a bunch of reports on a bulleting board somewhere.

John Curran: Well, because we haven't had any comments yet, and what I mean by that is that it hasn't been out for comment and we were going to open a comment period and have people submit it then, I guess if you'd like to make your comments we can probably save time at the end of this meeting to do that if you want to do it in the room. I don't think there will be any response because I don't think anyone's prepared responses or comments on it, but I think once we're done with the report, this is a fairly long session, but it's not going to fill the full gap so if you want to do your comments at the end of the session I think that would be great. Does that work for you?

Milton Mueller: I guess. I guess just let me ask you then why do you find it so difficult to simply discuss in an open way that doesn't bind you to anything the nature to the report and the alternatives as to how you might respond to it?

John Curran: I think we want to get the comments from the community first on that. I mean I'm happy to discuss the report – I guess, if you'd like, when you

provide your comments I'll respond to anything that I think I respond to and I imagine other people in the room will as well. We hadn't announced that we were going to have people make comments during the meeting here, so I don't know what the response rate will be Milton.

Milton Mueller: Did you announce that people could make comments about this report at this meeting and you would try to discuss it with them?

John Curran: No, we said based on the discussions with the structural improvement committee, this was the process that was agreed to, they said we should open it up for public comment and expect it there. So that's what we're following.

Milton Mueller: But there will be public comment at this meeting. I mean there's no reason to be rigid about...

John Curran: Oh sure you can comment on it, absolutely. The report is available online and this is the ASO update and if you want to comment at this meeting that would be great. So I guess do you want to, would you prefer to that at the end or do you want to do that now?

Milton Mueller: Well if there's going to be a period set aside for that that doesn't get overridden by a bunch of other stuff I'd be happy to comment at the end.

John Curran: How full is the agenda Louie? I don't...

Louie Lee: There should be plenty of time.

John Curran: Plenty of time, okay. Okay? Any other questions? Okay, thank you.

Louie Lee: So, moving on to the global policy update, I'll handle that. Thank you very much John. A quick review of the global policy process, you see the chart up there. This shows that the policies are created within the regions and as they are created there it's passed around to other regions to discuss and possibly modify and voted upon for ratification. Once all five regions agree on a common global policy proposal, then they pass that on to the ASO to confirm that the policy has gone through the policy development process correctly and that all significant viewpoints have been addressed; at which point we will pass it on to the ICANN Board and provide advice about it.

The arrows assume that the policies will automatically get ratified by the ICANN Board. However, if the ICANN Board finds question, issue with it, they are free to send it back to the ASO or just request

clarification. And as the ASO needs to respond right away or send it back to the community, they will act appropriately.

So the latest global policy proposal is designated GPP IPv4 2011. This is the global policy proposal for post-exhaustion IPv4 allocation mechanisms by IANA. While it was recognized by the AC as a policy candidate back in February last year, there has been substantial work in this area over the previous years in that this is the third version of the policy that addresses this topic. This policy specifically describes how IANA will allocate the v4 resources back to the regions.

It will do so by establishing an IPv4 pool and any remaining fragments and return space that it comes by would be put in this pool and then redistributed to the five regions on a regular basis. The process is identified in the ASO MOU with mechanisms more detailed in the attachment of the MOU. And further onto that, the operating procedures of the ASO AC govern how we actually handle the policy proposal as it comes through. We have a policy proposal facilitator team that watches closely the policy developments and any new activity that's going on, and they would provide a report to the ASO AC as a whole to consider.

Now, we have, with this policy, sent it on to the ICANN Board for ratification. We have transmitted this to them and they have a 60 day window to act on it. The 60 days allows them to either accept, reject, request changes, or take no action. If they take no action then this policy is automatically accepted and ratified. Within the 60 day period there is an open comment period as required by the ICANN Bylaws.

That concludes that section, any questions? Moving on – the regional policy updates. Of the five regions we have many policies that are being considered. These are the six or so, sorry the five topics and other policies that are being considered. And as you can see, they're covered in multiple regions at the same time. And if I may ask the APNIC representative to go through this slide for us please. And that is [Tomo Hirosan].

[Tomo Hirosan]:

Thank you Louie. Good afternoon. My name is [Tomo Hirosan] and I'm the ASO AC member from APNIC. And here I'll introduce this policy piece in the APNIC region. In APNIC we have two face to face meetings in a year and at that meeting we discuss policy proposals. And this slide shows the current policies on the table in the APNIC region. Three weeks ago we had an APNIC conference, an APNIC meeting at New Delhi in India and we discussed the top three policies – reports are 101, 99, and 102.

Proposal 101 proposes to remove a criteria multi-homing requirement from the IPv6 and its assignment policy. And proposal 99 proposes to ISPs to reserve a IPv6 larger continuous address blocks by five years protection. But we discussed these two proposals, but the proposals 101 and 99 did not meet consensus at this meeting and was returned to the committee for further discussion and now we are discussing these two proposals in the mailing list.

And the proposal 102, this proposal proposes to make a document for the sparse allocation of IPv6 addresses. And currently APNIC allocates IPv6 address sparsely so other ISPs can get continuous IPv6 address

blocks. But this is just a practice and it's not clearly documented, so this proposal proposes to document this practice clearly. And this proposal, proposal 102, reached a consensus at the APNIC meeting and is now in the final call in the mailing list. And last one, proposal 97 is a global policy that we already explained. That's all. Thank you.

Louie Lee:

Thank you very much [Tomo Hirozan]. And if I may, as we move on to the other regions, if the presenter can select one or two policies that have significance, major significance to this week or interesting for the ICANN body, please address those first. And we'll continue on; we have Alan Barrett from the AfriNIC region.

Alan Barrett:

Good afternoon. I'm Alan Barrett. I'm the appointed member of the ASO AC from the AfriNIC region. So in the AfriNIC region we have three policies which have recently been approved. There's the global policy GPP IPv4 2011, which you've already heard about. So as far as the AfriNIC region is concerned, this policy has been approved, but in the global space we're still waiting for it to go through the ICANN Board process.

And we have a policy called the IPv4 Soft Landing Policy and this is to change the way IPv4 space is allocated as we approach the final run out. And with immediate effect it reduces the time period used for planning purposes. When people apply for IPv4 space, one of the things they have to fill in on the application is a projection of how the space will be

used. And it used to be that that was a 12 month projection; it's been changed to an eight month projection.

And when we reach the final /8 the rules will change further. Right now AfriNIC has approximately two /8's of space in v4 space available. When we get down to only one /8 of v4 space, then the maximum size of each allocation or assignment is reduced. Currently it's /10, it will be reduced to a /13, and then later when there's only a /11 left, it will be further reduced to a /22. So that means that an organization cannot apply for more than this amount of space at any one time, but that can keep on coming back with more applications as long as there's space available.

And then it also reserves a /12 for unforeseen purposes and we don't know exactly what that means or what it will be used for. It's kind of for future decisions. And then there's a policy which was approved quite a while ago actually but not yet implemented about abuse contact information. Essentially it directs the AfriNIC staff to add a way for organizations to record in the WHOIS database information about how to report abuse.

Next slide please. Okay, then we have several proposed policies which have expired. In terms of the AfriNIC policy development process, if a policy is neither approved nor changed and resubmitted by the author within a 12 month period, then it expires. And there are four policies which recently reached that milestone. A policy for the reclamation of unallocated but unrooted v4 addresses. The idea there was if somebody had address space that was not being used then it could be forcibly removed from them, and that wasn't approved.

There was a policy about transfer of v4 space from one organization to another. That was not approved, but there did seem to be the idea that we should investigate policies in the space. Only that particular policy did not seem to be the right one. There's another proposal about adding contact addresses to the WHOIS and that proposal was abandoned by its author some time ago, but it's only just reached the 12 month cutoff.

And the GPP IPv4 2010 was not approved in the AfriNIC region and it's only recently reached the 12 month expiry cutoff. And then somewhat unusually right now, we do not have any proposed policies under discussion. We do have an AfriNIC meeting coming up in a couple of months and I expect that there will be some proposals on the table before then, but right now there aren't any. Okay.

Louie Lee: Thank you very much Alan. Go ahead?

Milton Mueller: So it was very interesting, if you could go back to the, yeah the first two you tell me that you defeated the proposal to reclaim the unrouted or under utilized IP space, at the same time you also didn't adopt a transfer policy; is that right?

Alan Barrett: Yes that's right.

Milton Mueller: So what were the reasons for, do you see any contradiction between these two things or what reasons were advanced for voting down the first one for example, the reclamation one?

Alan Barrett: I don't remember the specifics, but I think there was a concern that it's not really AfriNIC's place to forcibly remove address allocations from organizations simply because they're not rooting them. There's a legitimate need to have IPv4 space for internal use even if you're not going to root it globally on the internet.

Milton Mueller: And on the transfer policy, do I understand correctly then that AfriNIC has no transfer policy at all at this time? And could you tell us what, how you think that needed to be modified to become passable?

Alan Barrett: Yes that's correct; there is no transfer policy at this time in the AfriNIC region. That particular policy proposal did not have any requirements for the recipient of the address space to satisfy any of the needs based requirements which we have in most cases, and I think that's the main reason why it was not approved. So there did seem to be a consensus that a transfer policy would be worthwhile, but that particular policy proposal was worded in such a way that it couldn't be accepted.

Louie Lee: Okay, thank you. Other questions? We'll move on. The ARIN policy update – as you can see up there, there are several policy proposals

under discussion. Of main interest probably to this group are the inter-RIR transfers and clarifying requirements for IPv4 transfers, and the return to a 12 month supply and reset trigger.

ARIN 2011-1, the ARIN inter-RIR transfers, in that one the ARIN Board took the AC's recommendation, the AC being the ARIC AC, which is a body within the ARIN region, which will accept policy proposals, draft and present to a committee and then to the Board. The AC's recommendations in this case was to adopt under advisement and decided to present this one, give this one more time in our next meeting in Vancouver due to a last call discussion. The Board also directed staff to prepare for implementation in order to minimize delay should the draft be adopted.

Moving on to clarifying requirements for IPv4 transfers, for ARIN 2012-1, it adds criteria to specified transfers, such as making a source organization ineligible for ARIN address space for 12 months after transferring space out from their organization to another organization.

And finally, the 2012-4 return to 12 month supply and reset trigger to /8 free pool. In this one the ISPs would again be able to request a 12 month supply of address space from ARIN versus a current three month supply. This policy would return to a three month supply when the /8 worth of address space remains in ARINs free pool.

And waiting for developments is ARIN 2011-5 and 2011-9. The shared transition space for IPv4 address extension, there's a similar draft that appears to have moved forward at the IETF, therefore another /10 would likely be added to the RFC 1918 Private Address Space. The 2011-9 is the global policy that we discussed earlier.

So moving on we have the LACNIC policy update, and Sebastien has come just in time for that.

Sebastian: I was there.

Louie Lee: Oh, you were behind me? Okay, thank you.

Sebastian: I was here.

Male: I'm vouching for him; he was here.

Sebastian: Okay, let's go through it. We have several policies under discussion. LAC 2011-07 is a modification of a policy which requires the allocations to be only in region. It's been discussed in our meeting, last meeting in Buenos Aires. It didn't get much consensus, but it's still there. The other from last year is 2011-08 and it is about including or putting information in the WHOIS database when it's available. 2011-09 would be the about simplifying the allocation to end users; it's lifting the requirements for allocation because in several countries there are restrictions where the ISPs are not allocating them in (inaudible) space in order to apply for a block as an end user; so, loosening the requirements for end users.

And this year's, that was last years discussions, the new ones that we've got so far is 2012-01. We have still a reference for the term "dial up" in one of our policies and the community is now working on a replacement of that term for dynamic, whatever, but we seem to be discussing what the correct terminology will be. Also the other one that's a new one is 2012-02 that deals with registering assignments from the ISPs which are bigger than /48 in v6 or 49 in v4. They have to register those assignments when they occur.

Recently implemented 2011-03; that is a modification that requires when you get allocated an IPv4 block, also to have an IPv6 block allocated. You can either have been allocated in past or you can apply for an IPv6 block at that moment. And the 2011-04 is the same for the reserved space; that requirement for having v6 allocated when you apply for an IPv4 block. And 2011-06 is our Soft Landing Policy basically as presented by Alan Barrett, when we reach our final /12 the maximum allocation would be a /22, and people can come twice a year to get new allocations. That will be basically it, thank you.

Louie Lee: Thank you very much Sebastian. And for the RIPE NCC region we have Dave Wilson.

Dave Wilson: Thank you very much Louie. I'm Dave Wilson. I'm a Address Council member for the RIPE region and look at me, I only have three policies to summarize just now, so let me describe them. The first one is both an

extension of the initial, the size of the initial allocation that an operator can get in IPv6 space. Why would you want this?

It turns out there's a transition mechanism called 6RD, I'm not going to get too deep into the why's and how's, but it involved using a block of IPv6 space to map into the IPv4 address space. And it turns out that with the initial allocations that most of us get, and that most of us expect to continue using with our growing, that fits precisely with no leeway, no room for anything else and one footnote per end user, which is a bit tight. So this policy proposal is to allow a little bit more leeway and extend room for that. There are other "work arounds," but those "work arounds" do begin to defeat the purpose of IPv6, so that's the rationale for this policy proposal.

The second one is about internet exchange points. We already have a policy in force in the RIPE region for what happens when we get down to our last block of space and start using the final /8, and this policy proposal recognizes the fact that we're going to need internet exchange points in the future and there a little bit special in that they're one thing that you just cannot do without public address space; there doesn't seem to be any sensible alternative. They don't have the "work arounds" that the rest of us possibly have and this would make some room inside that /8 policy; it would adjust that last /8 policy in order to allow allocations to the new and indeed growing internet exchange points.

Those two are both address policy proposals and you'll find them, if you want to see further discussion or join further discussion, in our Address Policy Working Group in the RIPE region. The third one isn't an address

policy; it's about contact information of the WHOIS. And what this provides for is a new field in the RIPE database called "abuse-c" and an operator can use that to provide specific contact data for reports of network abuse. And it's particularly for; that one is being discussed in our Anti-abuse Working Group right now.

And indeed if you want to follow them further we do have a RIPE meeting next month where indeed we do have the principle where one can participate fully on the working group mailing lists, so I would invite anyone interested to subscribe and to participate. Thank you Louie.

Louie Lee:

Excellent, thank you Dave. So before I go on, I want to see a show of hands, first timers to this session, this workshop. Alright, thank you. You too? I didn't think anybody up here was. So, participation is fairly simple in our process. As you saw from our lists of policy proposals and activities not everything is purely technical. If you have a technical slant and have comments or would like to work on any of those, please free to join in. But also, we have issues, matters that relate to, for instance, WHOIS, which is very near and dear to many people's hearts at the ICANN meetings.

We have matters relating to how we handle law enforcement; things of that nature, how we respond. So with that you may subscribe to our RIR policy mailing list. There are no membership requirements. There is no requirement for you to either be an ISP or reside in any specific regions. You may even participate in policy discussions across to another region. Your own experience is what's being asked for to participate in other regions.

And to attend the meetings themselves, you may attend in person, it's open. It's either free or for a nominal fee. Or you may participate remotely free. There are remote mechanisms for you to do so, online mechanisms. And the five upcoming meetings for each of the RIRs are posted. They are April, May and August and in some of the regions there is another one happening within the same year.

So with that, are there any questions about the global policy, regional policies or how to participate? So, next we have the Internet Resource Status Report. If I may ask John to continue with that.

John Curran:

Happy to Louie. I think I remember what these slides are. So IPv4 address space, what is the status of each of the 256 /8's. You see 130 of them registered RIR. You see "not available; reserved for the IETF" predominately things like experimental and multicast. Among the ones that were allocated to the RIRs, the distribution is ARIN 36; APNIC 45; AfriNIC 5; LACNIC 9; RIPE NCC 35. So, about even between ARIN, APNIC and RIPE with IPv4 for LACNIC and AfriNIC being smaller. That's the entire address space graph. Next slide.

Okay, in terms of issuance over time, you can sort of see early on ARIN, this is a little less than 12 years I guess it's showing. ARIN has the early resources along with RIPE and APNIC. Over the most recent years though, APNIC, the growth in that region obviously has required quite a bit of address space, up till 2011. And IPv4 space, RIRs to customers, this is when the allocations come to us for that pool what have we allocated out. And you can see that RIPE, APNIC and ARIN are very close

to their actual allocations. AfriNIC and LACNIC again are somewhat smaller than the space that they've received from the IANA.

Next. ASN Assignments (inaudible) system numbers. How many ASNs have the RIRs assigned per year? This is two byte ASNs; the ASNs that were initially rolled out. And you can see a significant amount issued by ARIN, a little bit of APNIC and RIPE in the beginning. Over time again it kind of changed. In this case the RIPE NCC community seems to like AS numbers and continues to assign two byte AS numbers at a dramatic rate. We have 65,000 of them because there's two bytes, but we're going to run out sooner or later.

Luckily the community has rolled out four byte ASNs and has made those work in all routing protocols. So if you go to the next slide, here's the total ASNs of two bytes allocated by RIR from January 1999 to 2011. And then if we go to the next slide, four byte ASNs, which were standardized by the IETF. You can see APNIC taking an early lead in the deployment of that and we now have RIPE doing also a significant number of four byte ASNs, as well as LACNIC. That's wonderful.

Can you go back one slide? So the ARIN line for four byte ASNs is nominal, even though we know that there are still two byte ASNs being given out. One of the questions is why is growth of four byte ASNs in the ARIN region relatively flat compared to the others, where two byte ASNs are actively being used. And I actually sent a query out to some folks and got back some responses and they indicated that there are still service providers in North America who claim they can't support four byte ASNs. There is less and less of them every year, but it only takes one to prevent you from using that.

So we'll spend some time talking about that at ARIN meetings because while we're not using very many two byte ASNs, clearly we want to make sure everyone can use four byte instead before we run out. Okay, next. Four byte ASNs over time, this kind of highlights that. The 41 four byte ASN users in the ARIN region, maybe I'll have a reception just for them to congratulate them on their use of four byte ASNs. Next slide.

iPv6 address space – so iPv6 address space isn't really expressed in counts; it's expressed in prefixes. The entire iPv6 address space we take a /3 out of that. Of that /3, reserved for global unicast; i.e. single end point addresses, the IANA has an ample reserve and then has taken several of the /12's and allocated them, one for miscellaneous and then one for each of the RIRs. It is true, the RIRs are successfully working through their space and at some point we'll probably see an RIR with two /12's, but this is the current allocation. Next.

iPv6 allocations – RIRs to LIRs. You can sort of see the growth over time in all of the regions, with a remarkable amount of allocations; that's good to see, because we need to get all 15,000 plus service providers with iPv6 to move the internet. Next. iPv6 allocations – RIRs to LIRs or ISPs. Total allocations made by each registry and then that allocation as measured in terms of address space shown on the right hand side. So there's been some very large allocations but it's good to see. Next.

iPv6 assignments from RIRs to end users; seeing significant growth there in end user assignments. And there are policies in every region that allow end user assignments. Next. Links to RIR statistics – if you want this data this data is available online, it's updated periodically. Each of the RIRs also maintain data statistics on their site. You can get the

statistics presentation or you can get the raw data if you want to crank your own numbers, and that's what the URLs there are shown. The IANA also maintains a very nice statistics on it's assignment page and are very helpful.

Free pool exhaustion – IPv4 free pool exhaustion. I guess I'll roll right into this Louie?

Louie Lee:

Do we have any questions about the statistics? Everybody understood them really well? Alright, moving on.

John Curran:

Okay, next slide. So the status of the free pool as of earlier this week, March 13th, AfriNIC 4.3 /8's; APNIC 1.19 /8's; ARIN 5.5; LACNIC 3.8; RIPE NCC 2.7. Next slide. So that's what it looks like graphed remaining. Ooh, back up. Okay, so that's what we have and then each region has policies that set the draw down rate of that. In some cases organizations have gone through their period of having generally available assignments and so now have specialized policies. And we also have the case that in RIPE and ARIN we're at the point of where we have shortened the allocation window. And generally organizations are only getting three months worth of their demand instead of 12 months based on their past allocations. Any questions on the IPv4 resource pool status?

Wonderful. Outreach, which has my name at the bottom as well, okay. So the RIRs do an extensive amount of outreach, we work with a lot of organizations to do this. All of the RIRs have staff for outreach. We

produce presentations and we have people available to come to meetings and to help you get the message out. So we do face to face training, workshops, seminars and road shows in all of the RIRs. We have e-learning materials online. So if you want to learn how the registry works, how to interact with it. You want to learn about the implications of DNS and IP addresses; you can go online, including self-paced learning.

Collaboration – we work extensively with the operators in all of our regions, and that means that in some cases those are joint meetings that take place all the time. In some cases they're periodic. But the network operator groups that are out there, each of the RIRs work with. And then also training organizations and other associations we'll do joint meetings with to help get training and the information out.

Next. Some of the workshops we hold for people who may not be actual users of address space, but want to know about the issues relating to it is some of the more interesting international organizations, such as the ITU, OECD, Asia-Pacific Economic Cooperative, CITELE the Inter-American Telecommunications Commission, and CANTO. We do joint workshops and also have joint information booths where we do training and also do training sessions at some of those meetings.

The Seed Alliance – a new umbrella alliance that several of the RIRs are working on. It is to promote innovation and social development. Participants funding comes from the IDRC, the International Development Resource Center, AfriNIC, APNIC, and LACNIC. APNIC and AfriNIC and LACNIC are the RIR partners for the program, who through their own individual initiatives for grants have grant programs, and a

very new initiative launch to help get innovation going in those regions.
Okay, questions?

Louie Lee: Please, you want to comment?

Male: In the training sessions it is reported that there are-

John Curran: In IPv6, what are the...

Male: Is there a giant agreement with (Inaudible) and ASO to produce such work?

John Curran: I'm sorry, I'm missing the question.

Louie Lee: Are you asking about R&D?

Male: R&D activities like the IPv6 transitions issues, on issues especially suppose there is still IPv4 and IPv6 is the future of the internet...

John Curran: I don't know about specific RIR – sorry specific NRO or ASO funded research activities, but I'm sure some of the RIRs have individually funded activities regarding research and IPv6 run out.

Male: Yeah, I think it is very important to promote and to enhance the IPv6 transitions in countries like, especially in the developing countries. There should be an R&D project in which there is a giant efforts by the academia and the ASO.

John Curran: Okay, I know we do a lot of outreach and training there. Paul, do you want to, regarding the need for joint research activities with developing countries for IPv6?

Paul Wilson: I'm sorry. I missed the context of that question. The small grants program, what's been called [ISEF] for some years at APNIC is a grants program for innovative developments in internet related technologies which have got benefits in terms of information society, and that has attracted and has received, in at least a couple of cases, IPv6 related grants. But the level of industrial support that may be required for significant IPv6 technology development is something that I think is not in the remit of RIRs in terms of funding or providing funding from our own revenue base. It's not something that we have been asked by our memberships to support. So that's all I can say about that, it just simply hasn't been proposed to us as something that we should apply member funds to.

Louie Lee: Of course that isn't to say that there aren't such R&D activities already going on, for instance like in the IETF and the IEEE. The IETF has been working for many years on transition mechanisms and have actually come out with several mechanisms for transferring into v6 into v4.

Male: Actually there is some research work like in the form of, in my mind, in the form of case studies. The countries who are in advance, they have a well plan, they execute the IPv6 transitions successfully. But in August 2011 I attended a workshop on IPv6 through [APD]. There are 20 country participants. I discussed with these members countries participants about their IPv6 transition plan. Most of the countries are not just initiating planning for this initiative. So, this is another issue that we should focus on the awareness programs. It's also supported by the ASO in terms of having that.

But for those countries who are in a planning phase, are just starting their planning phase and after the planning they execute it and it's closed a successful transition phase. So there should be examples of successful completions phase of those countries, in front of those countries, which are just initiating planning, like this is very important.

Paul Wilson: I took your question to refer to IPv6 technology development, which I think is an expensive industrial process that belongs these days in the companies that provide that or in universities that want to move

towards cutting edge developments. But I agree that the case study and the informational...

Male: I agree with you that in case of technology there are a lot research from the industry as far as the (inaudible) and the other protocols to communicate with IPv4 and IPv6 equipment. But still there are many questions in the mind of the community like in the ASO and GAC session there is a guy who said that "what is the role of (inaudible) to participate in the IPv6 programs."

Paul Wilson: Well sharing best practices and case studies is definitely something that we are interested in, I think each of the RIRs within our regions. And it's also something that in terms of that research and development fund, the Seed Alliance, I think it would be a very good candidate.

Male: Actually I am asking about the successful models, successful model of...

Paul Wilson: Yeah of course.

Louie Lee: Thank you very much. If we may manage our time we have an hour left in our session and a topic that has come up for discussion is the ASO review. And another item that I thought would be interesting would be

the effects of the global policy proposal, if ratified, what that would mean with the other addresses. Are there other topics we want to list?

John Curran: I have no preference for order and since Mr. Mueller asked to speak upon the ASO review report I think he should be first. I guess I will ask one thing, you're going to submit these as well so that we have them right?

Milton Mueller: I'll try yeah. What's the timeframe again?

Louie Lee: I'm sorry, what's the question?

Milton Mueller: What's the timeframe for comments on the...

John Curran: Timeframe for comments – ICANN says they're going to open it in a week or two and the standard period is 21 days. I thought you were asking how much time to...right now I don't know. Louie runs the agenda here.

Milton Mueller: Well so I thought that the review process was very interesting. One could quibble about the fact that the report was commissioned by the NRO which in some sense is the entity being reviewed, but I think the

report didn't do a bad job of raising some of the issues. There's a lot of big issues regarding the structure of IP Address governance in the ICANN regime that could be discussed, but they're probably too big for this meeting.

I'm going to concentrate on some of the smaller issues and really what I'm just interested in is starting a dialogue about potential reforms of the governance structural for IP addressing and not in making any specific concrete proposals at this time, and just talking about ways forward, and hoping that what appears to many people on the outside to be a very closed community, not in the sense that your formal processes aren't open, but that the feeling is that the heads of the RIRs get together and decide what's going to happen and then they tell us about it.

Hopefully there will be more of a dialogue at this point where we could talk about alternatives. So let's just take one simple issue, the Nominating Committee. You guys appoint people to the Nominating Committee and every other the SO, the Nominating Committee appoints people to the Council. And that provides a kind of leavening of input, people who are not directly connected to all of the people involved are participating in dialogue. The NomCom appointees are known as sort of the independent appointees.

I just wonder what would be wrong with having the NomCom start to appoint people to the ASO Council?

Louie Lee:

We have Raul wanting to respond.

Raul Echeberria:

Thank you. This was deeply discussed within the structure of ICANN a few years ago, and it was present in the discussions and negotiations between the NRO and ICANNs during the signature of the Memorandum of Understanding. The answer is very simple; in other supporting organizations the ability to appoint people to the Council is a way to bring people from the large community to those Councils; Councils in which they would represent those organizations.

The NRO, the Numbering Council, the ASO, the Advisory Council is different because it is composed of people that has been elected by the community. And if you look at the communities of the RIRs together, this is probably the most diverse community in this ecosystem. Because we have people that belong to all the countries to the world, and that are active in their respective regions and communities.

If we look at the Boards of the RIRs together we have people from as many countries – I don't know exactly how many, it would be interesting, but probably from 20 countries or more. Among them Brazil, China, India, United States, Colombia, South Africa; many countries – I forgot a European country, but there are plenty of them too.

So that's the main explanation – that the people that formed the Advisory Council is people that came from the community and has been elected by the community. And so if you appoint people what you are doing is breaking the natural balance of the people that have been elected by the community. And in the other case, when you appoint people you bring balance. You are helping to have a more balanced

consensus because you are bringing people from the large community. I don't know if that is satisfactory.

Milton Mueller:

No, it's not really. The argument doesn't make sense; it's really kind of a tautological statement that basically you're defining the people who elect the Address Council as "the community" and you're defining everybody else as not in that community. And then with let's say the GNSO, they could say "We have our community of domain name constituencies; we're going to elect people to our Council and we're very diverse," which they in fact are.

Really I think you need to loosen up on this. This is not a big deal; it's simply a very minor kind of opening up to the broader community that might actually help you in the long term because people in the broader community would be more aware of the addressing issues and there wouldn't be enough people on that Council to upset, to dominate the voting or anything like that. I don't ever know if you vote or if you operate by consensus. But I just think that in terms of the likely importance that IP Addressing is going to have in the future and the way those issues are going to draw in the rest of the ICANN community, that it would be reasonable to have also a reciprocal relationship where if you get to put people on the NomCom to nominate people on other Councils, the NomCom should also be putting people on your Council as well.

Louie Lee:

Okay, we have Raul then John.

Raul Echeberria: Just to say that we don't define the communities. The communities are just open to anybody.

John Curran: I have no particular view on the us putting people on the NomCom, but regarding the Address Council I guess, Milton, you eluded to the fact that given the pressures on number resources it might be good to have people who don't come from the regional registries, elected by that community, on the Address Council. And I guess I'm wondering do you think that the ASO Address Council does policy development? What do you think the role of the Address Council is? Because policy development happens out in the five regions.

Milton Mueller: It does policy ratification in effect, is my understanding; is that right?

John Curran: Yes, predominately, based on whether the five RIRs have followed their procedures, that's what it provides to ICANNs Board, is a statement to that affect. So we'd really love to have people participate, but we need them to participate where the discussion is going on, and that's in the regional meetings. That's why we put a slide up with the meetings. That's why we tell people what policies are being discussed.

Milton Mueller: Then why should the ASO appoint people to the NomCom.

John Curran: I said I have no view on that either way.

Louie Lee: And then we have Hartmut.

Hartmut Glaser: A minute ago you asked about the reason that the ASO don't have a liaison. Can you please explain the advantage that you see in having one? I see the other point. You receive some answers from ASO members or from the community, but you don't defend your position.

Milton Mueller: I don't think I understood your question, you talked about a liaison?

Hartmut Glaser: Yes. You said the ASO is the only one Council without a liaison nominated by the Nominating Committee. You mentioned that the Nominating Committee don't send no one to – so I'd like to know.

Milton Mueller: Right an appointee. I was talking about Council members, not liaisons. Presumably you do have liaisons on the Council, right? So you're asking me what is the advantage of that? I think it would provide for better integration of the ASO with the broader community around ICANN, which I think will be necessary, so that you will get perspectives of the impact of address policies on the broader community.

development bodies that completely develop policy and consider it, not based on constituencies, but consider it based on the discussion of the merits of the issues. So we have that. But those issues are actually discussed where they should be, which is within the ASO organization in the regional policies.

Milton Mueller:

Yeah I guess let's put it this way. You have a Council that makes a decision that the policy that the RIRs say they've adopted has legitimacy and validity as a policy. Since the people voting on that Council are all elected by the RIRs who originally passed the policy, what incentive is there for anybody to challenge a decision or to do some basic due diligence and accountability checks.

John Curran:

A very good question. Imagine if there was an important issue that was overlooked at that level. The fact is that that policy would have to go back remanded to the five regional bodies for each of them to consider that issue, and that discussion would have to occur in any case in the five regional registries. So I appreciate you saying maybe that should be a place where it's discussed, but the discussion will actually have to happen in the actual community itself.

Milton Mueller;

I understand that, but I'm talking about how would it ever get remanded. Would there be maybe some [plubiness] or some unwillingness of the Council members to rock the boat. That you might have a value-add from the independent members to say, "Well what

really happened here? Let's look into how this really got passed and what procedures were actually followed."

John Curran: I think that's a wonderful suggestion. Ascribe that into comments. To the extent that ICANN is an oversight body to provide oversight on accountability and transparency, things to help that is worth looking at.

Louie Lee: Sebastian and then Paul.

Sebastian: Thank you. If I can make a clarification? I mean according to the ASO MOU we don't take any decisions basically. We just in the case of a global policy, and just in the case of a global policy, we just advise the ICANN Board that all the proper procedures has been followed in the proper policy development places. But we don't make decisions, we don't make policy. So that's I think that's just at your last assertion saying that a body that takes decisions, which we don't take regarding to policy. So I think that's the point and that's exactly what's written in the ASO MOU. We just advise the ICANN Board in that respect.

Milton Mueller: Is that correct? You make no decisions? You just sit around a room and talk?

Sebastian: With respect of the global policies that have been developed in the region.

Milton Mueller: You have to ratify the global policies.

Sebastian: We take no decisions. That's correct.

Milton Mueller: No, you make a decision that a policy is a global policy right? That it has been actually accepted by all the RIRs.

Sebastian: Yeah, but it's not in the substance of the policy, correct.

Louie Lee: Paul, then Raul. Oh no, okay.

Paul Wilson: Yeah, as you said Milton, it's not a huge issue and I think there are some quite arbitrary decisions, if you like, which have been made about the best way to fill the Address Council. There's no perfect solution. It's something that needs to tick certain boxes in terms of how it's done, how openly it's done, who by and do on. Just so that everyone knows what we're talking about, we've got three members per region, two of those members being elected not by RIR memberships but by the RIR community through open elections. And we've got one member in each

region being appointed by a mechanism of the choosing of the RIR organization itself.

So in the APNIC case, it is the APNIC Executive Committee, the Board of APNIC, which is an elected body which has its own process for choosing and appointing someone. But the roles of the Address Council and the Address Council are pretty limited and that's by definition. And by design it does a certain number of tasks. So I think what you're starting to allude to there is a desire or a suggestion that the Address Council should do more.

And I'm interested in what you said about having people put onto the Address Council who can be somehow more weighty or more influential. That's sort of interesting in a bottom-up, if I heard you right, that's interesting in a process that's essentially bottom-up. And it reminds me of something that happened within ICANN many, many years ago which was this sort of arbitrary decision to create a special committee that advised the Board on IP Addressing issues. And it included predominately some heavyweights from industry, who at that time had convinced themselves of the need for certain address policies to be put in place. And who, for some reason, were really unwilling to go through the bottom-up process.

And we were very alarmed at that time that somehow in this arbitrary manner a committee could be established that would go straight to the ICANN Board with a view of being more influential than they felt they could be by going in through a process that everyone else accepted. So I'm not saying that's necessarily what you're after at the AC level, but I think there is something of a mismatch that's possible in taking a

bottom-up process and trying to mix into that something that is top-down by nature. And I think you kind of put your finger on that by saying you're after someone being put onto the Address Council presumably in an environment where the Address Council can do something more than what it does at the moment, and being able to do so with more weight or more authority, or more I'm not quite sure what words you used, but it seemed to me to be a bit of a mismatch.

Milton Mueller:

Can I clarify that? I was just trying to clarify that if somebody was appointed to the Council by the NomCom that they would have a more important or influential role than if they were simply another voice at the regional level, yeah. But so would the other Council members who would continue to be the dominate numbers on the Council. And it didn't necessarily imply any reversal of the bottom-up policy development process.

Paul Wilson:

Okay.

Milton Mueller:

Although that is something that could also be discussed, but that wasn't what this was talking about.

Paul Wilson:

Sure, okay thanks.

Louie Lee: If I may have Raul, then John, but just before that just real quick. I assume that items that I had engaged you during the review period, have you given your thoughts to them during the process and I'm seeing a nod here. Actually my question got answered right on the spot, so if I may have Raul please.

Raul Echeberria: I just wanted to say that it is right that proposals like Milton's one are being made. So this is exactly the time for reviewing these kinds of things. What we are doing is reviewing the ASO fine here. So I provided my explanation of why at this moment there is not anybody appointed by the Nomination Committee and it was out of a long discussion between ICANN and the NRO at the time. But this is exactly the kind of things that we expect to receive as comments or proposals in this period. So I appreciate the comment.

Louie Lee: John?

John Curran: And I wanted to say the same thing. Actually as long as we understand what you're proposing, and I wanted to make sure understanding how to put people on the AC, I want to make sure we understood why you wanted to do that. And now that it's understood, you're also not simultaneously preparing to change the role of the AC, a different suggestion. I'm just trying to tease those apart. But definitely now is the time for such comments to come in because it's the review period.

Louie Lee: Paul, please.

Paul Wilson: I thought I'd change the subject to another statement that you made earlier Milton, which I think was possibly more pointed and less trivial than the one we've been talking about for quite some time, which is the suggestion that the RIR heads get together and make decisions. And that seemed to be kind of a weighty kind of suggestion of a closed shop. The RIRs do have a bunch of common operational activities, and we have a process by which the RIR CEOs get together in something called the NRO Executive Committee. And we do get together and we make decisions that have to do with operational matters and outreach, we've got a number of coordination groups as well which involve staff of the RIRs in directing on public affairs, on communications, on technical engineering matters, and so they again, are getting together to make decisions.

And the NRO EC level of course, we're accountable, the individuals on the EC as heads of the organization are accountable to each of the Boards we serve and those Boards are accountable to their members. And I think there's quite a few checks and balances there as to what we do and what decisions are made and why and how. And in fact, there's really quite a lot of negotiation amongst us in terms of the bottom-up process and how our accountabilities to Boards and by Boards to members is sort of reflected in the types of decisions we can make. And you'd be surprised at how few decisions we actually do, we are able to make because exactly of those accountabilities.

But decisions are made and we regard them naturally as operational decisions and not policy decisions. But I've said quite a few times that policy is in the eye of the beholder, and whether you regard a decision that's being made as a policy decision or an operational decision is often your opinion and is something that's a matter of debate. And it is the sort of question that gets raised either through our Boards or through our communities as these, as decisions are reported. And I guess each of the RIR CEOs at some point or other has been rapped on the knuckles or questioned in some way about whether some operational decision that has been made within the operation of the RIR is actually really permitted as an interpretation or an implementation of a policy, or whether it's a re-writing of a policy.

But I think it, unless you're pointing to something that you want to sort of climb as really a serious structural problem, then you might point out some particular issue or some sort of instance of a problem and we'll see if it's actually come up at our meetings or whether it's defensible or not. I don't know if this is a time or place to be talking about such individual matters, but I'm sort of interested in if you really think there's a structural problem here, where there is a bunch of people who get together making decisions that really should be more open.

Milton Mueller:

As internet governance institutions go, I'm on record as saying that it's a nice thing that the RIRs actually have memberships and that their memberships actually elect their officers, more or less. There are some thing there that I would try to improve, but this is not really about me so much as...I think the bigger issue that I'm kind of getting you all

prepared for is just that there may be a need in the future for larger structural reforms. And it's not so much that you guys are doing bad things in little conspiratorial circles, but that there might be structural...

Louie Lee: Can we get that on record?

Milton Mueller: No, I'm generally pro-RIRs as these things go.

Louie Lee: I'm kidding. Sorry.

Milton Mueller: But the issue is just will the system as a whole be able to make the kinds of reforms that need to be made going forward. And if they don't, will we get the US Government intervening through the IANA contract to impose – do you think a few guys on the Address Council or that's two top-down for you; wait till you learn more about some of the things that Senator Rockefeller has to be considering or some of the other proposals that could be made regarding how policy could be made.

So, I just think we need to try to preserve the best elements of the bottom-up model and the classical historical model, which I think is very good at avoiding centralized capture, but that it's also probably very bad at making broad changes in the framework.

Louie Lee: John. And I'm going to also ask if anybody behind me is wanting to make a comment or a question? Go ahead John.

John Curran: So I will repeat what I'm on record for in this exchange because that's fairly important given what you just said. The current RIR system is actually somewhat formalized through an ICANN global policy, ICP2, which describes some of the characteristics that a regional registry should have and how they are recognized. I think that to the extent that there's structural change needed, a proposal for that, submitted as global policy would be discussed by all of the RIRs. I'd love to have such a policy to discuss. I haven't seen one submitted to the policy process.

Alternatively, recognizing that there is an asking for the people involved to make and consider significant changes, it's possible that such discussions could go on some place else. But it's hard to discuss, in the abstract, changes until someone takes a leadership role and proposes what's wrong and what needs to change. And we haven't had anyone submit anything to our policy process, and we're looking forward to considering anything that comes in, but need to discuss something once we see it. Thank you.

Louie Lee: And from behind, would you like to come up to a microphone?

Salanieta Tamanikaiwaimaro: Salanieta Tamanikaiwaimaro for the transcripts; I'm with ALAC. Just a question whilst we're on this topic. Is it open to, perspectives open to –

sorry are the policy processes open for people from other backgrounds, quite aside from ISPs and that sort of thing who have votes, but from the law enforcement perspective in terms of jurisdictional instances. I mean I'm particularly interested in the US versus John Doe judgment and how it was purported to be binding on various RIRs in terms of a clamp down on Operation Ghost Net and that sort of thing.

And whilst I don't want to sort of stir the waters, but I am particularly interested from an ICANN community perspective on how we're dealing with the extra territorial jurisdictional issues, and whether you're open to perspectives from say the At-Large community into your policy processes and how that can take place. Thank you.

John Curran:

Sure, I'll respond. With respect to the policy processes, each of the RIRs policy processes is open to anyone. And that means ISPs, service providers, governments, law enforcements, civil society, anyone who wishes to participate can participate. You don't need to be a member. You don't need to be a service provider. Many of the RIRs actually have active outreach to government and have government liaison groups or government working groups that actually consider the policy issues and came and participate in the meeting.

So we actually take a special outreach towards them, even though they may not be a member, to make sure they know that there's policies going on. That has had impact to policies in the regions because of the feedback received by communities, government, law enforcement. With respect to ALAC, actually the RIRs, as you're probably aware, are very active in outreach to the At-Large community. We actually had the

LACRALO activity joint this week. And we're available to come work with At-Large, the community; we had a meeting yesterday. We will come to your meetings and let you have information about the policies.

So the policy development process is completely open and we really want the views discussed at that level. Because the reality is that you want to discuss the views on the merits. You want to say, "Here's the challenge that's being seen." By making sure those discussions happen around the globe, in multiple meetings, when they converge with five RIRs, we don't have to worry about whether we have a measure of consensus. The discussions happened in every forum and we have a measure of consensus. So what we want is we want involvement and we want the ICANN community to know they're not only able to participate, but they're encouraged to participate in every forum.

Salanieta Tamanikaiwaimaro: Thank you very much. Sala again, for the record; that's the shorter version of my name. Just out of curiosity, quite aside from the cross-constituency component in terms of outreach, is there a possibility for an ALAC liaison to the policy process from the various regions?

John Curran: So because the views that are expressed – I can speak to the ARIN process and I'll allow the other RIRs to step right in if they have a different – our views that are expressed on the floor are based on the merits of the issue. We don't, in the ARIN region, have a liaison carry a statement on behalf of a community. Because at the end of the day whether something is good policy or not is not based on simply how big

a constituency is behind it, it's based on discussing the merits of the issue, seeing the issue and the concerns that are involved.

So you can certainly have a liaison come and speak. They would speak on behalf of themselves just like a government representative does, just like a representative from an internet service provider comes. We're not trying to count heads. What we're trying to do is we're trying to get all the views expressed and considered.

Salanieta Tamanikaiwaimaro: Pardon me, my apologies. Just to clarify a little bit where my statement was coming from, and again this is subject to endorsement from the ALAC, this is something that hasn't been teased out within the ALAC but I'm just testing the waters here. When I was referring to an ALAC liaison from the various regions, like EURALO to RIPE NCC, AFRALO to AfriNIC and that sort of thing, what I was sort of getting to was a medium, a point of contact where all the policies that were currently being discussed is filtered and taken to the different RALOs for comment and that sort of thing. Because currently that's what we're doing with the other policy processes that happen within ICANN. So I was just wondering if that were a possibility. Again thank you and I think that's enough for me.

John Curran: I believe all the RIRs can support that. If we have the contacts we can provide you information about policies under discussion.

Louie Lee: And risking offering something, a resource I can't stand behind, they may even offer to host some of your RALO meetings; joint meetings. Okay, do we have anybody else on this set of topics? Go ahead Raymundo, mic is coming at you.

Raymundo: As you may know, I am one of the reviewers. I will not speak about the review, you have to read it. But I want to take the profit to thank the many people that had long interviews with us and we would noted everything they said. We tried to check and balance and retest proposals that were made. Some we put in and others we wouldn't accept. And so we have 27 recommendations and a lot of non-recommendations, which are all examined in the report. We interviewed 110 persons from the community. 16 of them are in this room in fact. And I would like to take profit to thank for the effort they made in this interview; they took a lot of time, about one hour each interview. And on behalf of ITEMS and myself I have to thanks for the participation.

Louie Lee: Thank you, that's a nice wrap up for that topic. If we may, move onto the global policy proposal that we've just recently passed onto the ICANN Board and actually specifically the effects that we may be having in having a policy that allows IANA to redistribute free space if it comes into it in any form. Anybody want to take the first shot at that? John?

John Curran:

I believe that several RIRs have spaced that's been returned that would become subject to this policy. I know in the ARIN region we do have significant address space that's been returned. The Board has noted the presence of this global policy. If this policy is ratified I will bring a request to them to return space so that it can be reallocated according to this policy.

So it's well known there will be some space in the recovered address pool, we just don't know how much. As I said in an earlier session, the total amount of space we're talking about is a very small number compared to the amount of space that was issued in 2009, 2010. So the reallocation of this space will not materially affect run out for anyone. But it is a fairness in equity question to make sure unused resources that are returned are available to all the regions.

Louie Lee:

Excellent. Now that we're all well informed, comments to that? Anybody want to dispute that idea? This has been discussed for not just the past year, 12 months, but several years being that this is the third version of a global policy proposal on this topic. So much thanks to everyone that's been putting their hard work in and out through the years. And are there any other topics anybody wants to cover? Okay, great. And if Olof wants to give a mention.

Olof Nordling:

Olof Nordling, ICANN staff. Left for completeness sake it seems to be all of the session, to be crystal clear to the remote participants, of which there are precious few, but no questions from them.

