STEVE CROCKER: Good morning, everybody. Hello. This is a joint meeting of the ICANN board and the ASO/NRO. This begins the constituency day, and the board is planted here pretty much the entire day, with a rotating set of engagements, and you guys get the best of us, I think. At least the other people who come later think that it must have been better before. Cochairing this or chairing this is Paul Wilson.

PAUL WILSON: Sure.

STEVE CROCKER: Sure. Why not.

[ Laughter ]

Fundamentally, we're here -- the board is here to listen, try to respond if we can, take notes if we can't, and so let me turn things over to you and we're here to make this as meaningful and productive a period as we can. I'll dispense with pro forma speeches.
PAUL WILSON: Sure. Hi, I'm Paul Wilson. I'm the head of APNIC. I'm one of the members of the NRO executive council. That's the collection of five RIR CEOs who lead the coordination amongst the RIRs under the NRO banner, so I'm here with Alan beside me as the CEO of AfriNIC, and should we do some introductions, actually?

ALAN BARRETT: Probably a good idea.

PAUL WILSON: Yeah. Sure.

ALAN BARRETT: Okay. Good morning. I'm Alan Barrett, CEO of AfriNIC, and like APNIC, we're one of the five RIRs which form the NRO which acts as the address support organization within ICANN.

LOUIE LEE: Hi. Good morning, I'm Louie Lee and this is Louie's hat. I am the chair of the address council within the ASO. The address council has the task of overwatching, overseeing the policies that come through the five RIRs, and we also appoint two members to the ICANN board.
BRAJESH JAIN: I'm Brajesh Jain attending this meeting as observer. I'm elected to NRO NC from APNIC in the October APNIC conference in Colombo. Thank you.

JONNE SOININEN: Hello. I'm Jonne Soininen. I'm the IETF liaison to the ICANN board.

JORGE VILLA: Hi. My name is Jorge Villa. Okay. I'm one of the ASO AC member from the LACNIC region.

TOMOSHIRO FUJISAKI: Hi, good morning, my name is Tomoshiro Fujisaki, ASO AC member from APNIC region.

KEVIN BLUMBERG: Good morning. I'm Kevin Blumberg from the ARIN region. I'm the latest appointed position for that region replacing John Sweeting, who replaced Ron da Silva, so it's been a busy term.

CHERINE CHALABY: Good morning. I'm Cherine Chalaby. I'm a member of the board.
BRUNO LANVIN: Good morning. I'm Lito Ibarra, ICANN board member and also LACNIC board member.

CHRIS DISSPAIN: Good morning. Chris Disspain, member of the ICANN board.

KAVEH RANJBAR: Good morning. Kaveh Ranjbar, to-be-appointed member of ICANN board.

LOUSEWIES VAN der LAAN: Hi. Lousewies Van der Laan, member of the ICANN board, and I decided to sit here so nobody can tweet "Where are the women?"

GEORGE SADOWSKY: Good morning. George Sadowsky, ICANN board member.

RON DA SILVA: Ron da Silva, ICANN board from the ASO.

AKINORI MAEMURA: Good morning. My name is Akinori Maemura. I am appointed by the Address Supporting Organization to the ICANN board of
directors. I'm incoming board member, not yet a member, but still here.

KUO-WEI WU: I'm Kuo-Wei Wu, and three more day I will not be the ICANN board anymore and here I'd like to thank all the ASO member who appoint me for two terms, six year, and at the same time I have to say thank you to the number community giving me their support when I was the ICANN board for six year. So three day after, I have to say goodbye to you all.

STEVE CROCKER: And we will miss Kuo-Wei. He's been a delight to have on the board, very productive, and always a staunch advocate for the numbers community, and I think in concert with Ray Plzak, I think they can finally count success that we've said "Yes, numbers, the numbers -- oh, yeah, Paul, why don't you give a talk here, and" -- no. I'm being somewhat facetious. We do pay attention and we will be seen to be paying more attention to the numbers community.

All right. With that, let's launch into the topics that you've got.
PAUL WILSON: Just after the introductions there, I feel the need to maybe try and shed some light on some of the alphabet soup that's -- that we've heard here already, which is relating to the NRO and the ASO and the NC and the AC and so on.

So just to briefly clarify just so that we're all on the same page, the NRO is a body that is the representative and coordination body for all of the RIRs. We serve the purposes -- each serves the purpose of joint activities of the RIRs, which could be operational -- operational activities or coordination activities of joint projects.

One of those purposes or activities of the NRO is to serve as the ASO under the ICANN bylaws, so we have an agreement between -- an MoU between the NRO and ICANN to establish the ASO. There are some mirror structures between the NRO and the ASO. The NRO has what's called the number council, and the number council is elected in these elections that happen around the RIR regions periodically, and as Brajesh said, he is elected as the NRO NC -- number council -- member, the latest elected member from the Asia-Pacific.

But under the ASO MoU that number council serves as the address council under -- under ICANN.

The ASO MoU defines quite a limited role. It is the -- the body which channels global address policies into -- into ICANN, and it
actually doesn't -- under that MoU, it doesn't have an operational role, so the reason why we are here, both as -- some of us as NRO and some of us as ASO, is because the NRO represents the operational coordination of the RIRs, the ASO represents the policy coordination.

Excuse me. One of the things that I mentioned yesterday is that we have an ASO review coming up, so we have a periodic five-year review of the ASO. That's something that's also documented under the -- under the ASO MoU. It's something that we -- the RIRs commission as an independent review and that's going to be going ahead. So there's some chance -- although the ASO review is an independent process, I think there's some chance that we might try and resolve some of the alphabet soup and throw some clarity on the -- on that structure so that it can be maybe more clear and more -- and easier to understand because certainly some of the feedback that we receive is that -- that there is -- there can be some confusion between the roles of the ASO and the -- and the NRO.

STEVE CROCKER: The fantasy that I've had, now that we're saddled with hundreds of pages of bylaws, which is somewhat odd -- bylaws typically are not that lengthy -- is to have some sort of complexity index for the document and to suggest that any future changes should
be evaluated in terms of whether they increase or decrease the complexity, and I could imagine applying the same methodology to the relationship here.

PAUL WILSON: Yeah. The length of the glossary, I think is what we're talking about.

STEVE CROCKER: Yeah.

PAUL WILSON: So I think the first thing from the NRO's point of view, from the numbers community point of view, that I wanted to bring here is just simply a thank you to ICANN for the space that was given to us on the -- in the opening yesterday. It -- personally, very satisfying to me that we had that and -- had that opportunity and received a lot of feedback, I think, that it was appreciated by the community, that -- our brief thought was it was a good chance to be here more visibly in front of the entire community and not just in what's actually a relatively -- I mean, with all due respect to everyone here, what's actually a pretty small section of the ICANN community that's in this room, for instance.
So I think we all wanted to say thank you very much for that opportunity. We hope to have it again sometime in future, whether that's on a regular -- on a regular pattern or not. It seems -- it seems to be a good thing to do. Thanks.

STEVE CROCKER: I'm sure we'll do it again on some regular basis. I think it was -- I agree with you, it was very well received. I think we all appreciated it and found it informative and -- as well as a strong signal that we do care. Asha?

ASHA HEMRAJANI: Yeah. Thanks, Steve. If I could just interject very briefly. I just want to echo what you said, Paul. I think it was fantastic that you spoke at the opening, and we got some really good feedback from the Indian government delegation. The statistics you quoted were awesome. So thank you. You put a smile on many people's faces. Thank you.

PAUL WILSON: Back to the ASO review, this is an information point. The -- the review is being commissioned now. We have a call for proposals for interested organizations as -- who as independent parties would come in and perform a review. The review last time is fully documented and it's available on the NRO's Web site. You'll
see that the organization that -- that performed the review last time was a group called ITEMS, based in Latin America, but it's an open call that's going on at the moment.

I think we'd appreciate it, when that call goes out -- which is going to be in the next few days, couple days -- we'd appreciate it if any well-qualified organizations could be referred to that call for proposals, so that we do get good proposals to us.

We would also, I think once the review gets underway, appreciate assistance in whatever -- in attracting attention and awareness of whatever calls for input the review might involve. I'm sure there will be public calls for community input into the -- into that process, so we'd appreciate the assistance of ICANN board and staff in making sure that those things are well understood and the reviews gets as much input as it can.

STEVE CROCKER: I want to ask a question which I suspect I'm supposed to know the answer to, which is: Are the terms of reference and scope already set?

PAUL WILSON: They will be advised in the call for proposals that is going out that --
There was a previous call for proposals for the review five years ago, so we're basing the second call, this latest call, on that document, so the terms of reference and all the details are established there.

STEVE CROCKER: Good. Let me call on Rinalia, chair of our organizational effectiveness committee which oversees the process from the board's side.

RINALIA ABDUL RAHIM: Thank you.

Paul, my committee oversees all the organizational reviews that ICANN does, and the ASO review is special because it has more independence than the other reviews, so we have -- I have noted all your comments and requests and we will make sure that attention is paid to the input in terms of the scheduling and whatever it is that you need. When time comes, feel free to communicate with us. Thank you.

STEVE CROCKER: Thanks.
PAUL WILSON: The review is special but not unique. Under the ICANN bylaws, the GAC actually, in -- is -- exactly the same wording is applied to the GAC’s review, and the GAC also is responsible for its own -- its own review process, just for information.

But thank you very much, Rinalia. That's noted.

STEVE CROCKER: That covers the second item on your list? And talk about the GAC public safety walking -- GAC public safety working group and its relationship to the numbers community.

ASHA HEMRAJANI: Sorry, Steve, we can't hear you. And Paul, you might want to switch off your microphone.

STEVE CROCKER: Thank you, Asha.

I was just asking Paul to move to the next agenda item and talk about the GAC public safety working group and the relationship to the numbers community.

ALAN BARRETT: Okay. Thanks, Steve. I'll take this one.
So the -- there's some interest within the law enforcement community -- and that's carried over to the GAC's public safety working group -- interest in things like the accuracy of the databases which tell the police where to go to find the person using a particular IP address. And so of course that's also of interest to the RIRs. Every time we allocate IP addresses, we put entries in our WHOIS database, so we have, for some years, been in discussions, informal discussions mostly, with law enforcement, and that has also carried over to informal discussions with the public safety working group. And we now understand that there's some interest from the law enforcement community in proposing some policies within the five RIRs. I haven't seen the proposals but I imagine that they'll be policies about the accuracy of the database and the way it's maintained.

So these -- these proposals I see on the screen there, it says the public safety working group is interested in following our regional PDP. I think that's not quite accurate. I think it's law enforcement that's interested in following that process to improve WHOIS.

But there is some crossover there because the law enforcement people also participate in the PSWG.
STEVE CROCKER: Is there something that we can usefully dive into here in terms of discussing that as opposed to the status statement you just made?

ALAN BARRETT: No, I don't think there's anything we need to do here. I'm just giving you an update of the status. So, we might eventually want to create some kind of more formal liaison but no decisions have been made.

STEVE CROCKER: Are we in danger of running out of things to talk about? That can't be.

KUO-WEI WU: Yeah, I would just like to ask RIR regarding for the issues. Just like, Alan, you were saying, if enforcement from the government asking for the accuracy regarding for WHOIS database, do you have any -- anything about how to do it? Because we know there is for year issues some of the people actually in the WHOIS database but not really correct.

ALAN BARRETT: Yeah, it's a tricky issue. Usually when an organization comes to an RIR to get address space, we have some contact with them.
We sign a contract. We get email from them. So we have their telephone number and email address and things on record. But some years later that might change, and we do not have a process for fixing that.

Most of the RIRs do try to contact members from time to time. But the frequency with which that is done is not coordinated at all.

PAUL WILSON: Just to maybe put a more positive spin on that, each of the RIRs, we have formal relationships with every one of our constituencies -- every one of our direct constituents of the members who receive I.P. addresses directly from us. They have got formal relationships. And most of us actually do and increasingly ensure that those records are up to date, that the WHOIS records reflect the records of the organizations with whom we’ve got a relationship. That relationship mostly being renewed annually in a membership or contractual renewal.

The issue that some folks have in pursuing I.P. address attribution is the fact that you may go to the WHOIS database with an I.P. address. You will find at least the holder of that I.P. address who has been issued that address from the RIR.
What you may not find or what is harder to maintain completeness and accuracy of is the case where the holder of the I.P. address, the recipient of the block from the RIR, has subdelegated a block to another service provider. So there could be one or even more than one intermediate ISPs between the holder of the block from the RIRs and the end user.

And what the law enforcement folks have explained to us is that they may actually not have one organization to contact and possibly to have to go through a legal process with but they may find that they need to do that more than once to obtain the records, the identity firstly of the first downstream ISP and then go to that ISP and possibly find another one.

So in theory, these -- at least the first level of WHOIS records should be complete and accurate, although the maintenance of those records is up to not the RIR but the RIR member. But then if there is a subsequent downstream, then it becomes much less likely that those records are complete and accurate.

So we have actually seen a coordinated effort amongst a number of law enforcement agencies to bring this issue to the RIR communities. They haven't turned it yet into a policy proposal because they are simply wanting to promote an understanding of sort of what they're going through. And what we expect is that -- what we've heard is that issue could --
discussion could result in a policy proposal that would need to go around the RIR regions.

What Alan referred to is the fact that the registration practices and policies at each of the RIRs could be different in terms of the actual detail of the obligations and the processes. So that's a proposal which under the RIR system really can't be injected from the top. It's got to come into each of the five regions and be agreed by each of the -- each of the regions in turn.

It's actually not a case of a global policy which somehow needs to be agreed by everyone in order to have any effect because, in fact, as soon as the -- as soon as they find an improvement in any one region, that will be an improvement that will serve that purpose and the obvious aim is to spread that -- that improvement in their eyes and to achieve it in all five regions. But they are independent policy processes and implementations that will be going on there.

KUO-WEI WU: Yeah, actually thanks, Paul. I just take a chance. I asked Paul to explain to all of you, including ICANN board, to understand what is complexity of the WHOIS. And if the government GAC is talking about this issue, in some sense actually they should go back to their own countries. For example, like, let me say such as in Taiwan, actually when the government have these issues,
the best way to find out who have -- who using this I.P. address is a much better way to their local ISP or local I.P. address holder instead of coming back to the RIR because just like Paul said, there's several different step go.

From this high level, the RIR WHOIS database is very difficult to check to the final I.P. user. So if the GAC looking for that kind of issue, I would strong suggest the GAC to be understand the best way should go back to their local ISP to find solutions. That's my point.

STEVE CROCKER: I'm personally interested in digging into this. So I want to go around the table first.

Go ahead. Your turn.

BRAJESH JAIN: I'm Brajesh Jain. Now, as Mr. Kuo explained that local ISP LEA should go to the local ISPs, but they are reaching a dead end. For example, as ISP, I have taken addresses from APNIC. So police authority comes to me. Yes, I have taken, but I have to look at it through a datacenter customer and who has hosted certain content on that.
So this WHOIS person who is hosting that content, domain name, and we are reaching a dead end on that many times. So there is some kind of coordination which is needed between numbers as well as names so that we are able to point out that the domain name belongs to whom. So that is -- many times that is the dead end we are reaching. Thank you.

KEVIN BLUMBERG: So I think every region is going to have different issues in this regard. And the coordination individually just to make sure there is a common set of criteria would definitely be useful to the community. But I think -- I was just at the ARIN conference where a talk was done on this. And the most important issue, the most important issue, at least in the North American region was jurisdictional: Where is this I.P. being used so that we can go to the courts to do our due diligence to get a court order? And at a minimum, that was from what I was seeing with it the biggest issue, at least where is this so that we can know to go to Saint John, New Brunswick in Canada or to Washington, D.C., or wherever that I.P. may be used to talk to the courts to then deal with what they needed to deal with.

So it's definitely a different request than what I've seen in our region over the years, but it's definitely an important one.

STEVE CROCKER: Hi.

RON da SILVA: I think also at the RIPE meeting there was a similar example presented where the WHOIS data had a phone number in one country, an email address in another, address base from yet a third, and maybe a mailing address from a fourth. In that case, you know, maybe the data is accurate, but to which authority do you appeal for a subpoena? So there's some complexity in the data. And all the data is correct. It's all accurate, but, you know, how do you prosecute in that situation?

So there's a lot of complexity when you talk about the WHOIS data and information, how granular it needs to be. But I think certainly a desire to have accuracy from an operating standpoint and also to help enable addressing any misgranular -- or illegal activity, that's also valuable. But just being able to be identify if there's a compromised host that is spamming and creating a bunch of noise on the Internet, that is also valuable from an operating standpoint. So, yeah, this topic of WHOIS accuracy is certainly hang across the Internet in the large. We certainly see
it in the namespace, but it's the same issues and same concerns in the numbering namespace.

LOUSEWIES VAN der LAAN: Can I just add, there was an example at the RIPE meeting along the same lines. What was interesting, there was a presentation from EuroPOL. And I thought that was extremely encouraging. The challenge there is that when you have four or five different places you can go, there's not a single judge in the European region which will say you will be allowed to go serve every single one. So they need to be able to bring it back to one address. Maybe when that one fails, you go to the next one but then you have alerted the suspect and who knows, they can then cover their tracks.

But what I really thought was amazing was that the people from EuroPOL were in the room having that dialogue, and I think this is really where the added value is and also when the GAC knows that this is the level of where the technical people from that sector are cooperating with you guys, if I may call you numbers guys, that will make a huge difference in taking away their concerns because it's being resolved where it needs to be resolved, at the technical level.
AKINORI MAEMURA: Akinori Maemura. That's a very good point. I'm really happy to hear that -- maybe before that, the GAC's PSWG is doing a good job because WHOIS accuracy is really important for them to protect the citizen and for us to -- doing business on the Internet. So we definitely need a very good balance between, you know, enforceability and the, what you say, reasonability of the I.P. business conduct.

Then I'm really happy to hear that from the PSWG that discussion. Maybe there was -- from my memory, it was FBI of U.S., correct me, from it's now going to a proposal for the I.P. address global policy to the RIR arena. That is a very good way for the government people to get into the RIR forum to discuss such an important policy with the technical community. That's really something I like. Thank you.

STEVE CROCKER: Let me -- did you want to say?

KUO-WEI WU: Yeah. Yeah, I think response to some of the speaker, I think we have to be very careful to be talking about when you are raising the question. You are talking about content, and then you are talking about the name, and then you are talking about I.P. You
know, this is -- this is several part not all the solution you can find in ICANN platform.

For example, at least I don't think the content is where we maybe can coordinate but not our job. You know, I.P., we just deliver, allocate, assign an I.P. And the name is different things. Particularly when we are talking about it, if you want to talking about security, you have to understand the structures. For example, many peer end user in the different countries, you don't have a physical I.P. all the times. Your I.P. keep changing, you know, because they don't have enough I.P. for everyone. So in that case, that is the reason I say, you know, we need more coordination from the different sector and who will take the lead. To be honest, I don't think -- I don't know that it's a part of the ICANN org or not because you also talking about content. So -- but as we know, ICANN, we very little to touch about content stuff. So we need to bring to some other space to talking about it all.

The people like to help, like to coordinate but should be in the correct knowledge and right place to do it.

PAUL WILSON: I wanted to follow up. I think Kuo's made a very good point there about the fact that there's a lot more to this than WHOIS. And WHOIS -- I mean, we could overemphasize the importance
of these WHOIS changes. I mean, they are important, but WHOIS will never be a magic board and it would have to be the most incompetent criminal who was up to something on the Internet and was identifiable by a WHOIS record. I mean, that just doesn't happen. There are all sorts of very elementary ways in which you obfuscate yourself. And the WHOIS database will provide someone with certain information. In the first instance, it will provide the information quite reliably of who is the registered holder of the block of addresses identified by the RIR and allocated by the RIR.

So, I'm not sure if it's coordination, but it's definitely education that's needed. And as the providers of the WHOIS service, I think all of the RIRs feel an obligation to make sure that that service can be used and understood by the people who rely on it. We don't expect anyone else really to educate in how WHOIS works. It's our service. It's our obligation to educate and make sure it's understood both what WHOIS can do and what it can't do and how with their information you get from it, you can then proceed with an investigation, which actually has a lot to do with understanding not just the registration system but actually Internet routing, peering, the difference between private and public addresses and what might be happening through VPNs or private addresses and so on. These are actually educational challenges, you know, fairly straightforward ones to be honest,
in getting out there and making sure people who are relying on WHOIS can understand it.

And I think if we had a better informed community of users of WHOIS, then we actually -- these conversations would probably be -- would have less mystique around them. And that's, I think, the aim in some form or other of all of the RIRs.

RON da SILVA: Steve?

BRAJESH JAIN: I'm Brajesh. I just wanted to clarify on my interjection. I did not mean to regulate the content at all. I only said identify the domain name owner was the case, not what he's doing and what is the content identification. Thank you.

STEVE CROCKER: Thank you.

Ron.

RON da SILVA: Yeah, I had an a couple of other topics to bring up after we're done here. I just wanted to insert myself in the agenda.
STEVE CROCKER: I was waiting for this to die down so that I could crank it up a couple of notches. I will take my shot and then we can decide whether we want to do this or not.

I haven’t heard any discussion recently about the signature, about adding authentication to the process. So that's one of a couple of different aspects that I wanted to raise at the same time.

So one is what's happening with the authentication process, RPKI and so forth?

Another is what's the relationship assuming that that were to go forward between that and routing security so that addresses are used by the right parties and not hijacked into something else?

And the third thing that was on my mind is going back over all the things we just talked about, if somebody walked into all of this in a naive way and said: You mean it isn't straightforward that anybody who sends something from an address ought to be easily identifiable and there shouldn't be any paperwork involved and you just sort of press a button and you say what do we know about who is supposed to have control of this I.P. address? Why is that not the base we’re working from? Where is the pushback on that except that we have just grown up in a system where we didn’t put that in to begin with?
If we're quiet long enough, I assume that's not a question we want to talk about and move on to Ron's topic.

PAUL WILSON: On RPKI, this is the system by which I.P. address allocations certified using digital signature certificate mechanisms so that the holder of that address is identifiable and has a key base to access to -- the ability to sign address stations and claims about the addresses.

Like any other digital signature system, it can be used in an offline mode where you are simply signing and -- signing a request that a recipient can trust has come from the right place. That's a possible use of the RPKI that we have at the moment across all of the RIRs.

The original intention of RPKI was to use an insecure routing. That's an issue for the IETF, which the IETF has not come to a conclusion on yet. So the secured routing is something that's out of the hands of the RIRs. We have gone to efforts, big efforts, over many years to put support for the standards. But the running code -- contrary to the IETF some sort of credo, the running code actually doesn't exist for secure routing, at least not deployed -- not deployed or deployable across the Internet.
STEVE CROCKER: The sort of larger philosophical question that I raised of why isn't it just standard practice to have a trace from an IP address back to whoever is supposed to have it without having to go through formal legal machinery.

ALAN BARRETT: Yeah, I can try to talk about that, Steve. I don't have answers, but I have an analogy. In the real world pre-Internet, if you receive a letter in the post which says like, I have some photos of you which you probably don't want published in the newspaper, please send me some money, you can't just go to the police and say who sent that. You'd have to -- the police would have to do some work to trace it. Maybe there's a postmark on it which says which post office it came from, but there are no records of which person, which human being, mailed that thing. And so we have a similar issue in the Internet where if you get something from an IP address, you can trace it back possibly to which ISP it came from, but whether or not there are records of which human being did it is going to be up to the ISP. And perhaps it's a problem, but that is the system we've grown up with. And it's not unique to the Internet that things are hard to trace.

STEVE CROCKER: Yes.
CHRIS DISSPAIN: Thanks. Chris Disspain. I absolutely agree with your analogy, Alan. The only point that I would make that differs is the ease with which it is possible to do that. If you do it -- another thing that makes a difference in people's minds as to why they feel a greater need for that information. In order to actually do what you said in the postal system, you actually have to go and buy an envelope, you have to go and get a newspaper and cut up the letters and glue them to a piece of paper and put them in the envelope and send them off or get someone to -- or whatever, or buy a typewriter. But on the Internet it's very easy at 3:00 in the morning when you can't sleep and you've just come to the end of a -- you know, a chat with somebody on Facebook to think, I'll just do this. And so I think that's part of the issue, is that we've seen what appears to be a significant increase. And so I think people -- people from some areas of the community think that it should be -- you should be able to find out. I'm not advocating it. I'm just saying I think there is a slight difference in the analogy.

STEVE CROCKER: There's one other aspect in the -- in terms of the analogy which is, when you mail a letter it's a one-shot thing and the return address may be completely fictitious but it's not -- it doesn't
have any operational effect in the delivery process. When you're talking about IP addresses, you can have one-way things, UDP packets that are sent out, but the vast bulk of the interactions are two-way interactions at some level in the protocol, in which case there is something there and we're asking. So this anonymous person or whatever is communicating and we ought to take great -- so I'm -- I'm veering into a little bit of political issue here, but saying that we ought to have a system which protects the identity of the person but also protects the fact that we're going to make sure that stuff gets delivered to them. So they have first class status in terms of being able to communicate -- they have protected status with respect to being able to communicate but they're also protected from being identified. And I have trouble with that as a conceptual base that says this is the way it is and we're going to live with it. So stir the pot a little bit.

UNKNOWN SPEAKER: Steve.

PAUL WILSON: Could I -- could I add something here that, you know, I think, Steve, you've asked a question which -- for which the solution involves many, many parties, like a lot of things on the Internet. But I don't like to leave anyone with the sense that somehow the
RIRs have got the solution to that particular issue. Any more than, for instance, the land title's office can help to solve the fact that some crime has happened involving a piece of mail that arrives at a particular address. When you don't go to the title's office and say please help us to find who sent that address, from where or where to. You know, this is the limits of the RIR's responsibilities to run that title's office accurately and to make it possible to identify the parties who have got those addresses. But the actual traffic on the Internet does not flow through the RIR registries. The actual packets are not stored or registered anywhere. We have got no control whatsoever about over what an ISP's end user does, even though they happen to be using an address that came through the registry system. We just don't have that operational control or information at all. And I don't think anyone would want us to do that. So the question you asked actually has got many, many parties involved in a solution. It could involve, you know, a great many aspects to the solution, of which the RIRs would be just one small part.

RON da SILVA: Can I add a little more concreteness to that? And I'll use the U.S. in particular. There are privacy controls in place that prevent that end user information from being shared. And to use the addressing stuff in the ISP space, a cable operator would get a block of addresses from ARIN, the North American registry, and
in turn use that in a DHCP pool to assign to end users net. That assignment happens dynamically and it actually changes regularly. The ISP or the cable operator in this case knows at a given point in time which address it's assigned to, which house, based on the Mac address of the cable modem it's speaking to. So that information is available. But they are obligated by law to protect that privacy information so that a marketeer or a criminal or some miscreant who maybe wants to abuse that information doesn't have access to it and can then easily map your web queries through Google or through Netflix or some other online presence back to your home address. So there are - - there are specific laws that protect that information.

The registries will provide that this block of addresses was assigned to, say, Comcast. Comcast in turn may offer some granularity, based on naming conventions or some other public information that a particular block is used in a given city or a part of a city. So that kind of information is provided from the service provider community as gratuitous and just -- but public good. But taking it to the final granularity that says this particular address at this particular time belonged to Steve Crocker, that is protected through law. And similar laws exist across the world. And I don't think, you know, we can go and begin to advocate that we need to have this, you know, always available mapping of this address belongs to this particular end
user or this particular address without violating a lot of privacy laws.

STEVE CROCKER: Thank you. That is helpful. I guess I've been exposed to this more than once, but it still leaves me puzzled a little bit in terms of how do we raise the security level across the Internet. But I -- I take your point and appreciate the education.

Let me bring an end to that and turn things over to you for your next topics and so I don't wind up hijacking this entire discussion.

RON da SILVA: Thank you, Steve. We skipped past the very first bullet item which is the post-transition structure and operation. And I just wanted to point out, in the same vein that the NRO was welcomed to participate in the plenary here, Elise Gerich, who is here in the room, has been presenting, for many, many years, a regular update at all the RIR meetings on IANA operations and, you know, what's going on with respect to the registries. And she has added to that, in the last few presentations, an update on the structure of the PTI as president of the newly-formed organization and has been going through that in a lot of detail for the numbering community. So I just wanted to raise that as
one question, are there any details from that that Paul -- that the numbering community wants to explore today since we're all in the same room or, you know, is that sufficient? We'll certainly continue to have Elise go and share that across the community.

PAUL WILSON: Look, I think Elise and IANA staff presence at RIR meetings has been hugely appreciated. We rely on IANA services and the status reports of the activity levels and of the services and more recently of the new arrangements under the PTI have been really critical information, really, really important, and of great interest to the communities.

I think we could say that we would always like to, see at all of the RIRs, more ICANN board participation. It's -- it's -- we do see ICANN board members at different RIRs quite often. Kuo-Wei Wu, for instance, has been at most, if not all, of the APNIC meetings for many years. So that's -- that's appreciated. Asha has more recently attended APNIC meetings. I'm sure the same thing goes for other board members in other regions. But we would issue a standing invitation to the entire ICANN board and, of course, to join IANA and join us at RIR meetings and feel very free to contribute to the discussions and to bring updates and perspective from ICANN, even such as the -- the question you asked just now, Steve, that these issues can be discussed and
you’ll find an interesting audience of folks in the RIRs, Internet operators in most cases, who can also shed a lot of light on the industry as industry perspective on issues that you might -- that you might bring. Thanks.

RON da SILVA:  In the final five minutes or so that we have in this session, maybe one other item that would be interesting to hear from the NRO and that is with respect to the process used to select board members to the -- to the ICANN board from the ASO. I understand that there are some revisions and this may be coming also through the ASO review. But perhaps you could share a little bit about, you know, what's going on with respect to your procedures for selecting board members.

LOUIE LEE:  Certainly. Thanks, Ron. This is Louie. So we had a look at our procedures and understood that we needed to update them just to clarify how -- and to get them to match closer to the ICANN bylaws on board selection. Specifically, about how a member -- sorry, a candidate cannot participate in any way during the process. Previously they were not -- they were barred from speaking about the merits, about individuals, but they could contribute to how the -- how the process worked. But right now we are updating the procedures to make sure that we are
aligned with ICANN bylaws. So that should be taken care of soon. Is there another piece that you want me to address?

RON da SILVA: No, that was good. Thanks, Louie. Steve, back to you.

STEVE CROCKER: Thanks. I have a follow-up question, Louie, and thank you very much for that. Do you have, during that process, the necessary information from us as to the qualities we're looking for, or any other pertinent information? You obviously have direct access to the previous candidates who are -- I mean, to previous appointees who can tell you everything that there is to know about what we actually do as opposed to what we say we do and so forth. But if there's, you know, a broader set of information about what we're looking for or what the constraints are, et cetera, et cetera, I don't have a specific thing. I'm just thinking is there a way we can support that process better than we currently do?

LOUIE LEE: Yeah. So yes, we do ask for candidate feedback from the -- the appointees to make sure that we are looking at the right things or that if the conditions have changed on the ICANN board that maybe we need an update on how we can do our job better.
And along with that, our understanding that there is board training after the appointment happens for certain skills, that really helps us to not have to focus so closely -- you know, we could say weigh that -- weigh some of the skills a little lower for other skills or other criteria that we're looking at for specific pieces. So maybe get a -- maybe a better understanding of the specific skills that are being taught to incoming members may be a way for us to understand better things that we may have not had to look at so closely.

STEVE CROCKER: Before you do, you sent a little shiver down my back.

LOUIE LEE: Okay.

STEVE CROCKER: And Chris will respond, the chair of our Board Governance Committee. Yes, we've put some training processes and quite active in that process. I'm not sure that we intended or want the side effect being that you can send us unformed clay and we'll take care of it. In fact, quite the opposite, from my point of view. People who are experienced and have maturity. Joining the ICANN board is not supposed to be an on-the-job training
process. I'm speaking personally and not necessarily reflecting everybody else's view. Chris.

CHRIS DISSIPAIN: Thank you, Steve.

LOUIE LEE: If I may, just real quick, just tiny.

CHRIS DISSIPAIN: Yes.

LOUIE LEE: The board experience is the category we look at specifically, beyond everything else. So -- or executive experience, leadership experience and communication. So those are top-most. Maybe I may be mischaracterizing some of the character -- the categories a little bit, but the way I would look at everything, board experience and leadership and executive experience is very important to me in my selection.

CHRIS DISSIPAIN: Thanks, Louie. Every year we write to the nominating committee and set out what we think the character -- what sort of new board members we might be looking for. It's a standard letter
which then has at the end of it stuff that we put in specifically for each year. So it might say, this year, you know, we feel that it would be good to -- if you can find some people with experience in audit or finance or whatever it might be. What I don't think we do is do that with the organizer, the other SOs and ACs, and I think that's at least in part because with the NomCom it's every year and so it's become a process. What I think we should do is actually send you that letter anyway. If you happen to be having an election, cool. If you don't, it doesn't matter, but at least you have got the information. And we can do that with all of the SOs and ACs, just on the training thing. Yes, of course, there is training, but as Steve said, it's important that -- that it's there for the improvement both of skills rather than as a sort of, you know, training ground. And as a clue to the sorts of skill sets that the board might need, if you look at the committees and you look at the working groups that the board runs, those will kind of give you a sort of sketch of the sorts of skills that might -- that might be good. So obviously, you know, there's a Finance Committee so finance is good. There's a Governance Committee so governance is good, that sort of thing. Thanks.

STEVE CROCKER: It's not every year, but it is for the SOs, for each of the SOs, two years out of three. So it's more often than not, in a technical sense. Cherine.
CHERINE CHALABY: So I echo what was said, but in reality, the primary skills is a true representation of your -- your stakeholder -- I mean, the addressing organization because that's what makes the board richer, is the combination of knowledge and skills from different parts. But I think you said that you focus on also some prior board experience. I think that's -- that's very, very, very important, very useful. So I -- from my personal view is that those two things are -- would be a good balance. Thank you.

PAUL WILSON: In some of the previous discussions the board selections on the ASO I felt that there's been some uncertainty about the obligation of the ASO to select, as Cherine said, someone who is from our community, technical community with technical skills and knowledge relating directly to IP addressing and so forth. Whether that's a primary and, you know, an overarching requirement or whether there should be some other considerations such as diversity, such as other experience or the needs of the ICANN board, and I figure it would be quite useful to have a clearer idea, if we can, of whether it is the case that the ASO's are intended to serve specifically their technical requirement so they're blessed to serve those technical priorities primarily and leave it to the other ICANN structures, in
particular the NomCom, to look at the diversity issues and the broader diversity of needs of the board. That's something that's been sort of unclear in the past.

STEVE CROCKER: Before I call on Chris, let me see if I heard you correctly, and I'm going to try to extract something. I heard the possibility that there are three competing qualities that you might be faced with. One is technical knowledge about the subject matter, another is executive experience, board management experience, and the third is diversity, no particular order to those. And you're asking, I think, do we -- do we have a priority relationship among those if there were a trade-off to be --

UNKNOWN SPEAKER: (Off microphone).

STEVE CROCKER: You want to chime in on that?

CHRIS DISSPAIN: Thanks. I think -- I'm going to give you a couple of examples in a second, but I think the primary requirement for you is the person that you're happy with to represent you on the board. And that's -- I think that's what Cherine was basically saying. And
obviously -- so my view, and this is my personal view, I don't think it's particularly controversial, is that the role of the board members appointed by the SOs and ACs is to bring to the board the essence, the flavor, if you will, of each of those SOs and ACs and the experience of, in your case the numbers. That's the -- that's the primary purpose. If they happen to bring a whole suite of other skills as well, that's great.

So the best example I can give you that I know of is when the -- when I was chairing the ccNSO we elected -- obviously we put board members on. When we asked the board in this particular year, and I can't remember which year it was, but it was fairly early on, what would you like us -- what sort of skills would you like, the response we got was, we would like somebody who has been on boards, who knows how to be on a board. So we took that and we actually elected Mike Silber because he was a ccTLD person but also a very experienced board member. And we -- you know, so we were happy to meet that criteria. But we would not have put Mike on if we were not comfortable that he was steeped, if you like, in ccTLDness.

So I think that's the -- that's the point. When it comes to diversity, yes, if you -- in your own -- under your own constructs you've got -- you would have your own diversity requirements. ccNSO, for example, has a general principle that you wouldn't
have two board members from the same region. You diversify across the region.

But there is specifically written into the bylaws that it is the nominating committee’s role to look at who has been appointed to the board from the SOs and the ACs and to attempt -- not guaranteed -- attempt to adjust for diversity, where possible. And that is regional, geographic, gender, and so on. That's actually in the NomCom bylaws.

STEVE CROCKER: Actually, to clarify, I think, the -- I think the geographic diversity is a requirement. At least --

CHRIS DISSPAIN: Yes. I'm sorry.

STEVE CROCKER: At least -- at least --

CHRIS DISSPAIN: That's a requirement.

STEVE CROCKER: -- at least one, no more than five --
CHRIS DISSPAIN: Yeah.

STEVE CROCKER: And the others are aspirational.

CHRIS DISSPAIN: Correct. Yes. That's -- that's right. The geographic one is -- yeah.

STEVE CROCKER: Yeah. We have actually run out not of topics but of time, so this brings this session to a close. Let me thank you. Thank you all for coming.

Any last words?

PAUL WILSON: Thank you. Thank you all for coming.

[ Laughter ]

The invitation to the -- invitation to the ICANN board to attend APNIC RIR meetings, I'm sorry, is extended to everyone in the room and everyone in the community, as I said yesterday.

That's the only final word. Thanks.