
ICANN81 | AGM – Joint Meeting: ASO and RSSAC
Sunday, November 10, 2024 – 15:00 to 16:00 TRT

OZAN SAHIN:

Hello and welcome to the joint meeting between the Address Supporting Organization and the Root Server System Advisory Committee. My name is Ozan, and I'm the remote participation manager for this session. Please note that this session is being recorded and is governed by the ICANN expected standards of behavior and the ICANN committed to anti-harassment policy. During this session, questions or comments will only be read aloud if submitted within the Q&A pod. If you would like to speak during the session, please raise your hand in Zoom. When called upon, virtual participants will be given permission to unmute in Zoom. On-site participants will use a physical microphone to speak. Please state your name for the record and speak at a reasonable pace. I will now hand the floor over to our secretary, Jeff Osborn.

JEFF OSBORN:

Good afternoon, all. And to those remote, good morning, good evening, good middle of the night, whatever it happens to be. I'm very excited to host what is the first, for me, interaction between the RSSAC and ASOs. As I understand, the primary purpose of the meeting, we're going to hear from Hervé on a proposal that is, I think, germane to all of us. And I'm wondering whether to open, it wouldn't be wise to go around the

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table and do introductions. So just simply who you are and your affiliation. We'll start from the left.

RICARDO PATARA: Ricardo Patara, ASO AC member from LACNIC region.

HIRO HOTTA: Hiro Hotta from WIDE and JPRS for the root server operator [inaudible].

HERVÉ CLEMENT: Hervé Clement, chair of the ASO AC from the RIPE region.

LARS-JOHAN LIMAN: Lars-Johan Liman from Netnod, root server operator and RSSAC member.

DUANE WESSELS: Duane Wessels from Verisign. I'm the root zone maintainer liaison to RSSAC.

KEN RENARD: Ken Renard, Army Research Lab, root server operator.

KARL REUSS: Karl Reuss, University of Maryland, RSSAC, root server operator.

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- HANS PETTER HOLEN: Hans petter Holen from the RIPE NCC, which means I'm both on RSSAC for K-root and the chair of the NRO EC, which is the executive council of the address reporting organization.
- ANGELA DALL'ARA: I'm Angela Dall'Ara, policy officer at RIPE NCC.
- DMITRY KOHMANYUK: Dmitry Kohmanyuk, I'm representing Ukrainian ccTLD, acting as observer. I'm also a former member of Number Council.
- DANIEL MIGAULT: Daniel Migault, the IETF liaison to RSSAC.
- JEFF OSBORN: Jeff Osborn, ISC and RSSAC chair.
- ROB CAROLINA: Rob Carolina with ISC and RSSAC.
- BRAD VERD: Brad Verd, Verisign and RSSAC.
- CONSTANZE BURGER: Constanze Burger from the ASO AC and RIPE region.

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- NICOLE CHAN: Nicole Chan, ASO AC from APNIC region.
- GAURAV KANSAL: Gaurav Kansal, ASO AC council member from APNIC region.
- KEVIN BLUMBERG: Kevin Blumberg, ASO AC, ARIN region.
- CHSI QUESADA: Chris Quesada, ASO AC, ARIN region.
- DI MA: Di Ma, ASO AC, APNIC region, and I happen to be a member of RSSAC caucus.
- WES HARDAKER: Wes Hardaker, USC ISI root server operations RSSAC liaison to the ICANN board.
- JEFF OSBORN: Thank you all for taking the time for that. I hope I'm not missing anyone important.
- NICK NUGENT: Well, you're missing me, I wouldn't say I'm important. Nick Nugent, ASO AC, ARIN region.

JEFF OSBORN: Excellent. I'll leave a space for anyone else since I obviously erred immediately. Terrific. With that, I think it's time to hand the floor to Hervé.

HERVÉ CLEMENT: Yeah, thank you very much. I will present because it's important to present the ICP2 dedicated work today because we are on the ongoing way of the public consultation within the ICANN. And we expect that the supporting organization and the advisory committee, sorry, from the ICANN will answer and make a comment about this draft we have prepared so far. I think, so sorry for that, but the slides I presented and Constanze and I presented during the last RIPE meeting. And Ozan, if you go perhaps to slide 9 and 10, something like that, because I won't present the ASO AC per se. It was the one before.

So what is ICP2? ICP is Internet Coordination Policy. Two, there is two other, ICP1 and ICP3, dedicated to [inaudible] domain name and DNS also. And a brief history of the system of the IP addresses management with the different regions. In 2001, there have been three regions existing, so the RIPE NCC, the APNIC and the ARIN. And then in 2000, it's more unspoken was the story because at this time it was the chair of the ASO AC. It's not to say that I will be the CEO of the RIPE NCC at that moment, but it's not the goal. But it was a reason and it was seen necessary to create this ICP2 to establish a list of criteria for recognizing new regional internet registry. And via this document, two additional regional registries have been created. The LACNIC for the Middle and South America in 2002 and the AFRINIC in 2005. And there is a summary

of this history with the foundation of the ICANN in 1998. You can go down to the next slide.

The ICP2 review project. After 24, 25 years of existence, it seemed necessary to update this list of criteria because the world has evolved in a different way, technical, governance, political ecosystem, et cetera. And it was on October 2023, the NRO EC, Hans petter is the chair, who asked us to help with two specific tasks. And the objective of these two specific tasks are to strengthen the regional internet registry system. First task, so the purpose of this task is to use and to be able to use these criteria not only for the creation of new regional internet registry, but also to have an indicator or a list of indicators on the way a regional internet registry is ongoing. And so the idea is to have an entire cycle of life in terms of these regions. And in a very extreme case, but it could happen only after many discussions, many possible help from the different regions, it could be the de-registration of a region if the criteria included in the ICP2 are not observed. So that's the first part. And it's work, so we have performed in the idea of this work was to comment the document prepared by the NRO EC on the legal team of the regions. The second part is update per se of this criteria. It's to establish a manager process to update ICP2 in 2024 and 2025. The public consultation we are ongoing on is part of this process. And the idea to update this criteria is to provide the regional internet registry system with a better accountability to the internet community. You can go to the next slide.

And to present the work we have performed within the ASO AC, there is a timeline. The request was addressed in October 2023. The 24th of

January in 2024, the NRO EC provided us the first draft of its implementation procedure. So one more time, it's a possibility to use this criteria for the entire cycle of the life of a regional internet registry. We met in Montevideo, which is the place of the LACNIC in Uruguay, to review this procedure proposed by the NRO EC in consultation with the regional internet registry staff, mainly the legal, who are present. So 7th February of 2024, we provided to the NRO EC in return, a written feedback on implementation procedure. And then we started the work about the second task requested by the NRO EC. There was the ICANN 79 meeting in it was in San Juan and during this meeting we begin the work on process to revise ICP 2 and from March to present we are work of drafting a document which is now under consultation, which is public setting four proposed core principle. It's to be included is the next version of ICP 2 and to return to César what belonged to César, so the shaper of the drafting of his document is Nick, who arrived just near the chair of the RSSAC and the shaper of the agenda and timeline related ICP 2 is Kevin just in front of me. You can go to the next slide.

8th of October 2024 we published the principal document via two questionnaires. I would say there is the NRO questionnaire sent to the five regions, to the five communities of the regions. So people individually from the communities can answer this questionnaire. So the idea after each criteria is to say I strongly support, I fully support this criteria and having the possibility to add comment on that. So there is a questionnaire from one part and the ICANN public comment who follows the normal public comment process and will be open till 6th of December. So it was till 25th of November initially, there was a request from the ALAC to extend the period of consultation.

After, the idea from December 2024 to June 2025 will be to update the document we have first written based this time on the community feedback because for this document to be legitimate, it's very important and necessary to have the approval of the communities. The idea also is to be in July 2025 to publish a draft of this ICP2 taking into account the community feedback and to reconsider another feedback for the community regarding this new draft and we hope in September 2025 to present a final draft of updated ICP2 to the ICANN for consideration. In Asterix, there is in Asterix after the future date because it's conservative estimates. We don't know what will be the answer regarding this questionnaire. There could be other uncertainty, but we will do our best to be aligned to the date we could estimate. You can go to the next slide.

So it was a slide dedicated to the RIPE community, so it's a QR code to the regional questionnaire. But you have to go to the specific page of the ICANN to answer to the public comment. And I think it's all for me. So perhaps I will give the floor to people from the ASO AC if you want to add something I could have forgotten.

KEVIN BLUMBERG:

Thank you, Kevin Blumberg. So just to clarify, both public consultations are open to everybody. The ICANN one is done in their process and their procedures and is very helpful to people within the ICANN community, obviously. But as I've said to a couple people, just because the ICANN one is there doesn't mean that you individually can't comment on the RIR ones as well for your own companies, etc. So there we're trying to

be as inclusive as possible globally with the consultations. That's why there's two of them.

I think the one thing that's missing from this is what Hans petter said yesterday, which is the key part for me, which is what is missing from ICP2 today and what we're really looking towards, which is a life cycle. ICP2, and I think this is part of the reason why we have a joint session today, ICP2 is a starting document. It's a formation of... ..20 years later, we realize that there needs to be more life cycle inside of ICP2. And I think the questions that are within the principles document really speak to those life-cycle components, and hopefully we can continue more on that discussion. Timeline, which is hopefully what I'm trying to keep to, really comes down to the community and its feedback, and hopefully we'll be able to re-assess the timeline. But we're really aiming for the end of 2025 to have this all wrapped up, which is for this type of document an aggressive timeline, but I think well within our abilities.

UNIDENTIFIED SPEAKER: Just to touch upon or piggyback on some of Kevin's points, the life cycle, I think we would argue, is implicit in the current version of ICP2, not absent. So much of the purpose of this revision is to make it explicit, so just to emphasize that point. The second thing, very minor, is we could use advice on a name. We've been tossing around this ICP2v2 and other very awkward terms. ICP4 is available. I strongly regret not including that as a distinct question in our survey. So if you have feedback on that, we'd love some ideas on the nomenclature.

HERVÉ CLEMENT:

Thank you, and I wanted to add something as well. We at the ASO AC, I would say, we have not the power to decide or to create finally something from scratch. When we talk about update of the criteria, definitely it's an update. The major change, finally, is a vast entire cycle of the life of the regional international history. After regarding the criteria in terms of what regional international histories has to do, there's nothing completely new or revolutionary. It's an update, because one more time, where that change, there could be inconsistency in terms of definition or something like that. So I think the document is clearer in terms of definition. And after I propose for you to read this document. It's not a long document. It's three or four pages maximum, and to have a specific idea of what it is, but we will be happy if you have an idea of ICP2, of reading the document to answer your questions.

UNIDENTIFIED SPEAKER:

Sorry, just a quick notice. I see the 6th December deadline on our slides, yet on ICANN org, the deadline is stated as 19th of November, so I guess one of them must be fixed. ICANN org has the earlier deadline than the slide deck has.

HERVÉ CLEMENT:

It was a very new decision. It was a decision we have taken during our monthly meeting last Wednesday, and I confirmed the ALAC so perhaps three days ago, but Ozan, perhaps you know the process of updating the date of the deadline.

UNIDENTIFIED SPEAKER: Yeah, one source of truth is very important. Thank you.

JEFF OSBORN: At the risk of sounding non-helpful, one of the issues that I've stated several times today and heard stated several times is that RSSAC within ICANN has a very narrow scope. A very narrow scope. We are to address the ICANN community and the board on issues involving the root server system. Having said that, we're made up of a bunch of individuals who have a great deal of interest in helping with all kinds of things, but I think as an organization, I'm feeling like I need to at some point make very clear this probably isn't something RSSAC could contribute to as an organization. Having said that, we have something insane like several centuries of experience of internet advocacy, governance, and operation in the group. The one more thing I'd like to say is when this issue first came up, I was interested for a slightly selfish reason that I want to at least put out there to let you know it's something we're thinking about. The idea of adding and removing an RIR, something that hasn't happened in a very long time, but it's certainly implicit in the policies you're talking about. We haven't added a root server in decades. But it's something that's coming up in policy as something we are going to do.

For that reason, I find whatever it is you guys end up doing to be extremely interesting, even if only by way of analogy or parallel or something. So my friend Hans Petter was kind enough to introduce to me, I should probably at some point say, the organization may not be terrifically helpful, but we are made up of individuals that I expect can be very helpful. So I'm opening it up that way. And then also saying, by

the way, when you're doing this, one of your more difficult components, the addition and removal of an RIR, I hate to even say that out loud, is going to hit with the same effect that the addition or removal of a root server operator will. Is that clear?

HERVÉ CLEMENT:

I will perhaps answer in a few words, but I think Hans Petter will have more to say about that. The only thing I will say is I would not be so extreme to say that the RSSAC will have a poor contribution to the answer to this publication, because all the point of view are interesting for us and for the legitimacy of the adoption of this document. Having, finally, the answer of all the support organization of the advisory committee, finally, will help to have a support to this document. And after that, I think Hans Petter have very interesting things to answer as well.

HANS PETTER HOLEN:

Yeah, thank you for that. To build on what Jeff said, I think the work you're doing here with the principles, and he is pointing to removal and addition, is very interesting for the ROOT SERVER SYSTEM GWG, because it's directly parallel. How do we govern a system of something within ICANN? So I think with that, this presentation is really useful, especially if you go in and look at the actual principles in this document, which is based on a series of RFCs from before the ICANN and before the RIR system even. So there is a long history of principles here. When that is said, I think it's good that Jeff came with a clarification that this is probably outside the scope of RSSAC. So you may, I know I'm just

speaking from my understanding, get an answer back saying that, thank you for the presentation. We do not think this affects the root server system, which is the kind of advice that we would give. But I may be wrong, so my colleagues on RSSAC will probably violently discuss this in the upcoming RSSAC meetings. But I think Jeff's response here set a bit of the expectations on how much input you can expect from RSSAC as such. From the individuals around the table, I would expect a lot of input, but that's a different matter.

KEVIN BLUMBERG:

Saying that it's out of scope of RSSAC is as helpful as saying it's in scope. That in itself is a very important piece of information. And it's important for us because of the nature of this document to do this work. And then if you decide this is out of scope, that is very helpful to us. If there are things that you have a concern regarding us putting into our document, thinking it's in scope within our document that may have an impact to RSSAC, that's an example of something to call out, which is sort of the guardrails of our own document, not having an impact to yours. So I think that there are some things that could be helpful, even if it's to basically say, nope, not in scope, thank you. And we'd appreciate any input, even that.

JEFF OSBORN:

Thank you, Kevin. And with that caveat, I think it's important to recognize, like I said, as individuals, we're fascinated. As individuals, I'm looking forward to getting you in a corner and figuring out what the hell you think you're trying to pull off. So should any of our individuals come

and say, hey, this is becoming an RSSAC matter, we could let you know. But I think right out of the gate, with our narrow scope, this is outside of our scope.

LARS-JOHAN LIMAN:

I thank you for doing this, because it brings this issue to our attentions, and both as a group, as a RSSAC organization, but also to us individual members of the group. And there's one little tidbit that you might want to do. Now we are picking up that this is on our radar. And I agree with Jeff that this is not within scope for RSSAC, but now we are aware of it. And if it would help you at the end to ease having this document, the final document accepted, one such little tidbit of grease could be, if you want to send it to RSSAC, just with the question is, do you endorse this or something? And you maybe could send feedback, yes, not a problem for the rules of operators, and that gives you another little shove forward. Thanks.

UNIDENTIFIED SPEAKER:

Thank you for your commentary, I appreciate it.

BRAD VERD:

I guess I'm gonna push back just a little bit.. I agree with Liman and Jeff saying it's probably not in scope as we see it right now. I think as it evolves, it's something that RSSAC should be very aware of and pay attention to, to see if there is anything that would be impacting to us. So it isn't, I don't think we should sit on the sidelines. I think we should continue to be engaged.

ROB CAROLINA:

The principles document at the site that I just downloaded, which the four page principles document, which I've only just skimmed through, but it's very well put together. And I appreciate the thought and effort that's gone into it. There seems to be a lot of focus in there on sort of the qualities that an RIR must possess. And there's a lot of thought demonstrated as well in questions of governance process. It's very front and center in the document. What I'm wondering though, I'm kind of searching for, perhaps you could draw my attention to it if it's in here, is to what extent do these principles address the question, what is it that would cause us to need another RIR? I mean, and part of my reason for asking this, and at this point, I can't stress enough that I'm speaking on my own, not for anybody. But the reason I ask is that within the discussions we've had in the root server system governance working group, we spent a reasonable chunk of time on precisely that question, which is why would you need another one of these? Or why would you need one less of these? I mean, I don't wanna comment on the current composition of the group of RIRs because we all know that there've been successes and some challenges. But nonetheless, is that addressed? To what extent is that addressed in your principles document? What would cause you to want another one?

HERVÉ CLEMENT:

So I will give a simple question, perhaps frustrating, because as we are on the process of the consultation, so the idea for us is during this period not to comment finally, so the comments, the definition and the criteria here written and displayed, not to influence the answer of the

others, but we listen carefully your comment. Regarding the idea of creation of a new regional intelligence registries is not something new. It's something that was present. It's the original ICP2 one more time. When I say the modification was also to have an entire cycle to have a consolidated document on that. We are, at the ASO AC, we have not a specific purpose of anything regarding political or something, et cetera. At the end of the consultation, so your comment is really taken into account, we will be able to redraft something and to have an idea of what you said.

HANS PETTER HOLEN:

Yeah, so thanks for the question, Robert. And I think this is something that consciously has been left out of the original ICP2 and probably consciously will be left out of this ICP2. The document ICP2 describes the criteria for setting up, which means you need community support, you need government support, you need broad consensus that this is a good thing to do. When RIPE NCC was established, the driving force there was that the community met in Europe and wanted to fix all the issues of internet in Europe. This was back in '89. We still have RIPE meeting, so we still haven't solved all the issues. But then it was figured, wouldn't it be convenient to have a registry in our time zone and then we could set our own policies and work around that? So that was the driver to set that up. AFRINIC later was separated from our region and from ARIN region to unite Africa into one continent and one registry. LACNIC similarly split off from ARIN. They also had a language driver that English is not their primarily language so they know can provide better services in Spanish and Portuguese. So there are multiple of

different reasons for setting up a new RIR in history and this document back then was a neutral set of criteria on what it would take to do that. In the original document I think it states that the area served must be continental in size. That kind of limits it to a handful. Whether that should be in the next principles document is something that you know you're welcome to give input on. And if you want to speculate further in GAC, I got a question from one country on are there any plans to establish a new RIR and my answer is no. But this is about bottom-up so if the community in a certain region thinks that is good for some reason, then this would be the process to follow to make that happen.

ROB CAROLINA:

Just to follow up, thank you Hans petter. That's as always a wonderfully clear response. I guess the first thing that's running through my mind is what happens. Can you predict how these set of principles would respond to 10 or 20 geographically defined regions, geographically bounded regions that all showed local strong community support and strong local government support, strong local linguistic reasons? If that were situation were to develop, would this process aid that or is there anything that counterbalances it by saying there comes a point where if we envision a world with 400 RIRs, clearly there's something may have gone amiss in terms of the risks that that presents to a single name and numbering space. So if 400 is too many and five is too few, is there something in the principles document that you anticipate would be in the principal's document that would help to strike that balance or help to actually just stake out a position as to how to do that?

HANS PETTER HOLEN:

No, you will get the politician's answer. That will not answer your question. 30 years ago, IP addressing space was purely hierarchical. So there was a block, a slash eight, or even before that, a class A, put to the ripens a seed that was delegated further there. And there was also the thinking that that should also be used on this side of the Atlantic and not on the other side of the Atlantic because of routing and lack of memory in Cisco routers. And there were great concerns that we would run out of memory. I think we've passed that barrier many times since with multiple orders of magnitude today with inter-RIR transfers, bits and pieces of address space is transferred among the five registries. Now, this is getting more cumbersome with only manual processes. Now, that can be fixed by automating, that can be fixed by changing the technology into a somewhat more distributed database. If we're going to go beyond five plus two, three, we definitely need to have a big technological shift in how we manage that, but that's not impossible. So would you envision that there would be a Nordic RIR where the language would be in Norwegian, Swedish, and Danish, and whether that would be efficient? Well, I think the thing that would counteract that would be the cost of operating that because there will be a basis cost of setting up such an RIR, operating RIR trust anchors, having the administrative overhead. So the members in those countries would have to pay maybe 10 times what they pay today, because of the scale of the organization. And then also, since that region is so strongly tied to Europe, Sweden and Finland being part of EU, I don't see that happen, right? But there may be other geopolitical concerns that, you know, would be pure speculation right now that we need to be prepared to meet, therefore we need to have solid procedures in place,

which needs to be updated. But to me, the most important thing with updating ICP-2 is not the creation part. That part of the procedure has been executed twice, and we know how to do that. That's not a problem. But it's the ongoing, the commitments that not only have I been established and met these criteria, it should be very explicit that I should, on an ongoing basis, meet the same criteria, and there should be a mechanism for external audit. So imagine each RIR being audited once every five years, that would be once a year a report by some external company that can be reviewed by the whole community, saying that, yeah, RIPE NCC still has a functioning board, it's still doing their GMs, it still has a working policy process, or whatever those criteria are. And if the auditors figure out that something is suboptimal, they will come with recommendations for improving, and we will improve, and the community can see that that's happening right. I think that's important. And with that, I hope we will never get into the situation that we would have to change an RIR to something else, right, or split an RIR or whatever. But who knows what the future will bring.

UNIDENTIFIED SPEAKER:

Thanks. I heard the word trust, and I did read this document twice now during our conversation. There is a joint trust tanker operation of RIR. I didn't find any mention of RPKI trust rank or in the document. I think we should include that, because it's a critical part of internet routing and IP rating structure. There is another part which I would call the human rights part. You know, internet is a basic human right, although maybe not formally recognized. There is a word that ecosystem covers every single network on earth, and also there is no more than one RIR is also

for the place. These two things are kind of natural, but I think there should be maybe a phrase just to emphasize that no human or computer should be left without RIR services.

Now once we talk about deregistering, there is a word about interim entity or successor. You know, this whole life cycle thing needs to be cleared out. Maybe not in the principal document, but in further work. Namely, imagine we're talking about the elephant in the room. Let's say AFRINIC was established as another organization tomorrow. So should we transition everything from the AFRINIC to the new company X, should we establish interim entity Y? I'm thinking of the main space issues, like how the registries solve that. If the registrar goes bankrupt, all the resources are temporarily held by, let's say, a box, an escrow box with the operator, and then they are moved to the new entity, right? I'm not saying we should repeat the same approach, but imagine that there is a long process of reestablishing the RIR for the region, maybe splitting it off or something else. These resources should be somehow held, and serving the users of affected regions should be made a high priority, so I think we should maybe elaborate on that. As this process of establishing the new RIR, transferring resources, you know, getting staff and all, that would definitely not be a month or two, and yet people are transferring IP addresses all the time. It's very critical for any unforeseen circumstance like that, which would lead to splitting off merging two RIRs or something. Maybe we should elaborate on that process and steps and put guarantees in the document that would ensure the continued operation.

HERVÉ CLEMENT:

It's always very interesting to hear about comments about that. So one more time, the idea is not for us during this period to comment, finally, the document we have so created. I think RPKI just, one, our objective was to have a short, simple document to read. So I don't say that RPKI is important or not important. That's not the point, but we wanted to have a document flexible enough. It's your advice about RPKI, et cetera, but I just say that our objective was to have something solid in the time life for that. But after the idea of this consultation is to have inputs from the community, including yours, to have another document regarding this input. And regarding all the problematic link to the creation of regional internet registry, As Hans Petter mentioned, it's something which happened, finally. In the past, it's something we do. I won't say that I'm sure, not sure, because it's not my role to have an idea of what will happen, but I'm pretty sure it will, it could be okay.

KEVIN BLUMBERG:

Thank you. We specifically removed out all of the technology and all of the things and left in the principles for the simple reason that if we had done up the document and completed it and sent the draft to the community, everybody would be hung up on individual words, concepts, technologies, everything else. And with the timeline that we were given, we felt that getting the input—and your input is extremely valid. Don't get me wrong. And the more input we can get, either through the NRO or the ICANN side, would absolutely help. We have to then balance where these bits go with the technology piece inside ICP2, or would it be an external document?

But I do have one question, and maybe I'm a little technically dense here with RSSAC. Do root servers use IP addresses?

UNIDENTIFIED SPEAKER: So for that question, there is actually a session on Monday where there is an RSSAC working party where you're all invited to come and attend because the root server operators have some thoughts on needs on IP addressing policies. So it would be really great if the address consult could be present at that session. But I do think that unfortunately you have a clashing session then, so we have to figure out how to manage that.

UNIDENTIFIED SPEAKER: I think as an organization, I'm pretty clear unless I get a different consensus from my members that we feel like we don't add as much to this as we add by not sticking our hands where you don't need them. And if that's not fair, let me know and we'll go back and reconsider that. Are there any other questions for the floor?

KENNY HUANG: Kenny Huang, Chair of APNIC, speaking in my personal capacity. And just a simple reminder, probably you can also be looking for feedback from our community. You probably can consider an ISOC has a special interest group called Interplanetary Network Working Group and they have been proposed interplanetary internet registry. So probably you can also consider space requirement for internet registry, that's it.

UNIDENTIFIED SPEAKER: I can add to that, Kenny, that the RIRs already have had meetings with the Interplanetary Internet Project Group and discussed how this can happen. And the comfort to Vint Cerf and his comrades on that team is that several of the RIRs can accommodate their needs currently, even with the planned settlement on Mars. You do not have to have a presence in the RIPE NCC region to become a member of the RIPE NCC. There is no need to establish an RIR on Mars before the colony is established. Of course there may be a need for that afterwards, but then there is no rush to get that settled.

WES HARDAKER: I'm also a member of the Internet Architecture Board and was at the IETF last week where there is actually a lot of work happening on the deep space related stuff. There was a [inaudible] related to how to do internetworking between the goal being Mars and actually the moon with respect to – there's already international operations underway that need interoperability with things like that. So it's actually underway and not only that, there's possibly going to be a research group starting within the IETF as well. So it's being actively discussed in multiple regions.

UNIDENTIFIED SPEAKER: Never a dull moment at ICANN. We have a few minutes left, and based on how fruitful it's been to open the floor to questions rather than just dismiss early, I would like to see whether anybody else has a comment or question.

HANS PETTER HOLEN: I leave to Hervé to close the meeting.

HERVÉ CLEMENT: Thank you, Hans Petter. I really appreciate it. The only word I could say is that – one more time – I encourage to read the document at the minimum for the answer, so it's up to you, of course, as an advisory committee, and there is a possibility to answer individually to the NRO questionnaires as well. So don't hesitate to do. Thank you.

UNIDENTIFIED SPEAKER: Thanks again, and we appreciate the opportunity to meet. Thank you, everyone. Good night.

[END OF TRANSCRIPTION]