LOS ANGELES – Fellowship Morning Sessions
Thursday, October 16, 2014 – 07:00 to 09:00
ICANN – Los Angeles, USA

JANICE DOUMA LANGE: …Fadi would really like it to be one of you, in the future, which he said at the meeting in Singapore when I was at, stopped with the Fellows. He'd like to see the day when the first Fellow steps up onto a Board position. He has already seen the day, and so have all of us, maybe not knowing it, where fellows are sitting on these councils.

We have Leon, who is nominated through the Nominating Committee, to sit on the At-Large Council. We've had [Beran], and [Sillea], who had recommended Martin to the Fellowship, sitting on the ccNSO Council, coming up through the Nominating committee. So it can be you, right now.

So they tell you about taking applications. The second reason it's important is engagement for your organization. If this is an opportunity for someone in your organization to get engaged, be on the Board, be on one of these councils, you want to be able to share with them how the application process works, and then that it's announced on the ICANN's website, when the openings are for the applications.

But any one with the qualifications can come. You don't have to know, like Olga, you don't have to know anything about ICANN. Come in, we take you through a leadership training, much like Martin went through last week, with two Board members, were at the training, actually going through it.

But we're looking for unique different perspective, different sector, unbiased, clean head people, to come and sit on our councils and on our boards, to share a different perspective and to be engaged. And then they get further outreach actually where they came from. So it's, the Nominating Committee was the last thing, I just wanted to say, they normally can come here.

The other thing I have to report, I'm sorry, don't be afraid to tell me what you think. I think some people think in reports, I don't want to, you know, tick her off, because then I'll never get an application through. I don't review the applications, number one. I see every application, I help put together the final list, and I'll share that.

Like the NomCom, I never used to share that. I do do that, openly I do do that. I need to find an equal balance of sector, of region, of gender. Now I need to find a balance of alumni, first, second time alumni, third time alumni that need this opportunity to come back. So once the minimum requirements are met, then I go through and I help the selection committee to create, I hope, a robust group, a quality group such as yourselves.

I hope to be able to produce that. I am not here to hold against anybody when I'm putting that group together, that you thought that the morning sessions for At-Large were horrible. Tell me what it is. Tell me that the speakers were not engaging you into the community. Tell me how to improve it. I have very thick skin, I cry easily, very thick skin, but I need to improve this. Seven years, it's a success, it will not be a success and it will get taken away the minute that we don't continue to improve it.

And I'm a one-man band, and without all of you, it will not continue to grow this way. So be honest with me, shoot straight from the hip. Tell me. I'm not going to change the 7:00, so shut that down. Not going to happen. But share with me what engaged you in the mornings and what didn't. Janice you talk to much, shut up, get off the mic, whatever.

Okay? But tell me. It can't improve unless you share with me and let me know, okay? So, I've had all of this to say, [inaudible] is trolling like a hungry rabbit up there. Since we still don't have a full… Honey, I can't help it, it's just not there, I'm trying.

So, we have two things to do. One, take a break and get coffee and orange juice, because at least I see that up there, and I know I need it as much as all of you do. So when we settle back in, we're going to do our rapid fire, and by then I hope the first of our two presenters will have come. Okay? So thanks, and guys online, thank you so much for putting up with us.

I know this has been a weird morning, and we will be back after this coffee break.

FADI CHEHADÉ: …to program, in my opinion, is still the most valuable program we do at ICANN. By far.

[Applause]

No, I mean that. If we looked at it from a quality and value standpoint, if we looked at it from a service to the public standpoint, if we look at it from an effective standpoint, in building the ICANN community, there is

nothing that comes close. We spend more money on a lot of other programs that frankly, don't come close to the value of this program.

So, I think Janice may have told you, but when I started, how many fellows did we do per year? And then I attended one of the fellowship meetings early on, and I said, "My goodness, this is amazing. Can we double this program next year?" And she was happy and very worried at the same time. And we did, and she doubled the program, so we're now 50 at every meeting.

And frankly, if it's up to me, I really would like to double this program again. There is no program that is serving ICANN, and serving the global public interest, better than this program. I'm very delighted you're here, and I love to see that [inaudible] and I hope it gets bigger, so long as Janice, you know, would still continue in that important role.

We also moved Janice and this group, since I started, to the public responsibility department, Nora Abusitta's department. I don't think Nora is here. Is she here? She's preparing for my next meeting in 20 minutes, she's up there. But this is to emphasize that what we do with you is at the core of our public responsibility remit.

This is not programmed to market ICANN. This is, no, this is what we need to do to bring people into the fold. And into making sure that the service we offer the community, the global community, is enhanced. So, I welcome that. I welcome that move and I hope it permeates in what we do with you.

We live in very interesting Internet times. Very interesting Internet times. I think you know that the transition from the US government is

at the center of a lot of what we're doing right now. And a lot of people are asking why? Why is it so important? So what? You know, there is a contract with the US government.

And many people think that the reason we are pushing very hard for that, is because we'd like to be independent. You know, for those of you, like me, who have kids, children who went through the teenage years, you remember how a child, you know, at 15, 16, starts asking for the car keys. You know, they want to be independent from their parents, they want to show that they are an adult now. And some people attribute ICANN's effort to get rid of the contract with the US government as, you know, teenage kind of independence.

And maybe some of it is there. Maybe some of this is to prove that we, but frankly, if we look at this more maturely, the reason this is important, is because it is an opportunity for us to show that we understand, and we're ready to take a global responsibility. That means we have to show what it means to be a mature organization serving the world.

And this is not simple, because when you say… And I know, when I had my long chat with both of my boys who are now in their 20's, about them fighting with their mother over independence, and one day I told Philip, "Let's go take a walk." And we went. When I move to the United States, I was alone, and I went to my church, and I asked the priest where I could live, so he said, "You can live in the basement of the church." So I lived in the basement of the church for a few months, and then after that, he said, "Well, there is this family that is willing to take you."

I was still learning English, I didn't speak English at the time so I was going to a community college to learn English. So I went to this family, and this family had a playhouse in the garden. You know, the playhouse is about this high, no maybe this high, and just enough for a human being to, but it's designed for little kids so they go in the garden to the playhouse, and they play house.

And the family gave me this house to live in, in the garden, of their house. And that's where I lived for a year, in the playhouse. I used to go to school to shower and cleanup because there was no bathroom. So I'd come at night from school. So I studied, studied, and learned English.

Anyway, I tell you all of this, because that day when Philip was acting like a teenager and not understanding what it means to become a responsible adult, I took him in the car, and I drove him to that little house. He had never seen it. And I said, "We're going to knock at the door of this family, and ask if we can go to the garden." He said, "What is this? Where are we? Why are doing…?'

He had never known this story. So the family opens, of course, they don't know me. These are new people that bought the house. And I said, "You know, maybe close to 30 years ago, or 25 years ago, you had a house, a playhouse, in the garden. Is it still there?" And they said, "Yes, it's there. Nobody uses it because we have no children."

So I said, "Do you mind? I used to live there." They laughed, they said, "You couldn't have lived there. You can barely put a big dog in there." And I said, "Well, I lived there." And that house was locked since I left. So I found even my little stickers and everything I had put in the house

was still there. And my son and I spent three hours in that house, sitting on the floor, talking.

And at that time, I talked about him about responsibility, and what it means to mature, and claim to your mother and to the world, you're an adult now. And in a way, ICANN is going through this now. You know? Because we sit and talk to people in, I just had a morning meeting with the new GAC chair, an old GAC vice-chairs, he has vice-chairs, they stayed until 1:00 in the morning and now they have five vice-chairs.

So I met the Namibia gentlemen who represents Namibia, for example, who beautifully explained to us in this great African spirit, why he wants now to be a servant to ICANN. You know, what a change. We're sitting there and he's telling us, "I am here to serve this community." That's responsibility. That's maturity. And until myself and my team also understand that, we're not here because we have big jobs, and they pay us a lot of money, and we have big titles.

We're here to serve this community, and to make sure that ICANN is rooted in the public interest. Not, and the money can blind. When there is a lot of money, and this is why a lot of people pay attention to ICANN, because we have a lot of money. Money can blind me, can blind my team, can blind my staff, can blind our community.

So we have to be mature in the responsibility that was handed to us. And that's a process. This just doesn't happen overnight, just my son didn't walk out of that little house an adult, but he started his journey. He started his journey because all of us have to. And ICANN is in that journey right now.

And you come at a very important time. At a time when ICANN is transforming, into a mature, global organization that is truly rooted in the public interest. This is the most important thing you need to know. Everything else is work, but if that work is done in the wrong spirit, it will yield the wrong fruits, and it will yield the wrong results. So that's key. That is what's happening now at ICANN.

I'm resetting the tone, and I ask you to help me with that. We need a confident, and positive tone. And an optimistic tone, because so much negative is around us. So many people want us to kind of drill down into the negative energy, and poison the wells of ICANN. There is a lot of that, but you are the blood of ICANN. And I want you to promise me, that if at any point, one of two things happen, you scream.

First, if people do not, if people block your ability to contribute, if people do not open doors for you, to let you be part of the process, scream, because that's not the ICANN we want. Do not wait until you're frustrated. Do not wait until you have to, I'm going to tell all and put it on a blog.

Don't wait this long, not because I'm worried about the blog, but because I'm worried about the spirit of ICANN. So please, if you feel at any point that I'm here and people are not respecting me, people are not letting me participate, not letting me contribute, any roadblocks.

This is why ICANN has no membership, no fees, anybody is welcome. So if anyone, in a soft way, makes you unwelcome, you scream. And how do you scream? And I'll tell you the second reason you should scream first, and then I'll tell you how to scream. The second reason you should

scream, is if at any point, you feel that there is bad, negative, poisoning spirit.

Stand up to it but not alone. Be careful, because I feel it all of the time. People come at you with very negative forces. If you feel it, call for help. Scream. Say, "I need help." This is not the ICANN I came to participate in. Okay? This is a public responsibility you have. Now how do you scream?

Your first scream point is her. Right? Because she knows how to scream at me. [Applause] Yeah? So I mean, even you become GAC members, you become, whatever happens to you in the ICANN journey, whatever happens, Janice is, until now, she works with fellows who started many years ago. So, please make sure, here you go, you have many here, right?

So please come to her. Janice is an example of positive spirit at ICANN. Who has gone through amazing, amazing times at ICANN, difficult times, times were, frankly, the positive spirit was not prevailing, and she kept her positive spirit. She is ICANN, so come to her, let her know, this is not working. Your second scream point is me. You can go to the ombudsman person if you're upset at me, and do that.

One of the community members I deeply respect was upset I did something, she went to the ombudsman. And then she, and I, and the ombudsman had long discussions, and peacefully we moved forward, and I learned a lesson. She was right. Do that, if you need to, or just come to me. And if I am not responsive, go to the ombudsman. But ICANN is your ICANN. Don't let anyone tell you, "It's Fadi's ICANN, it's Janice's ICANN, it's somebody…"

You need to make this place the way you want it to be. It's very important. Finally, I just want to tell you about the flipside which is, I told you many things about being in ICANN, but let's not make ICANN a fortress. Let's not make ICANN… When I arrived at ICANN, this was the thing that I was most fearful about. I'll be very honest with you.

I come from a small community in Egypt. And small communities can tend to be insular. Right? And so, I came, this is the church that I called when I first came to LA, and the priest, so I'm part of our community. But sometimes even within our community, I feel that our churches in our community become insular, and we become like a fortress.

On my first speech at ICANN in Prague, I spoke about being an oasis, not a fortress. And for those of you from places where there is a desert, you know the huge difference. You can see in the desert a fortress with big walls, or you can see an oasis. An open space. Oasis never have walls, they're open, they're welcoming, they're nurturing.

So ICANN cannot become a fortress. We cannot become insular. We cannot start thinking, we versus them. If we become this way, we will die in our fortress. Minorities that become insular, die slowly. But if we open, and we believe that ICANN is truly an oasis, then people will see us from far and say, "I want to be there. I want to be part of that community." So when people told me, "The ITU is after ICANN and after…"

I said, "Okay. We have two ways to deal with that. We can build a fortress and say we are better than them, or we can open up and…" And the week after I started at ICANN, [inaudible], the head of the ITU invited me to come and speak at the wicket. This had never happened

before, that an ICANN president was asked to open in the opening of the wicket.

And I must tell you, my own Board of Directors said don't go. Don't go. And I said, "How could I not go?" How could I not go? If I don't go then I saw we are a fortress. So we went. And it changed completely, our relationship with the ITU. There is not a single proposal that has come now to the ITU, which starts in [Lisbon?] next week, that says, anymore, that the names and numbers that ICANN coordinates, need to now move to the ITU.

Not one proposal. So, we have made progress, by being open, and by being careful. It doesn't mean we become naïve, but we become open. Insularity is, in my opinion, the beginning of the decent. And sometimes, I also grew up in Beirut, and so I watched the civil war unfold, and I tell you, during that civil war people killed each other because they became insular in their own communities through labels.

Labels. Do you know labels? I am, you know, Catholic from east Beirut, so I'm going to shoot you because you're a Christian Orthodox from west Beirut. Labels. Everybody put labels, and the country went to hell's basket. Don't make anything a label. So when people run around and start using the word multistakeholderism, as if it is a religion.

I am for multistakeholderism, he is for multilateralism, so we shoot. What is this? This is not the spirit of the Internet. We don't wear labels and shoot at each other. Our goal is not multistakeholderism. Our goal is an Internet that serves everyone, that's our goal.

How do we get there? By ensuring that the institutions that are managing the Internet, operate like the Internet in an open, distributed, inclusive way. And then how do we operate within these organizations? By respecting all stakeholders. By making sure we're inclusive. That's what we're doing. We're not creating a new religion.

Good luck to you. I can take one or two questions. Sir.

UNIDENTIFIED SPEAKER: I know we spoke briefly. My question, very quickly, I think you have gone into a lot. I'm from Trinidad and Tobago, we had the first summit of the Americas in 2009, I was present, Obama visit. One of the [inaudible], he asked me to find out, what is your response to France of June 2014? Why ICANN sponsor France's criticism of what is going on?

FADI CHEHADÉ: Thank you Alan. France is criticizing ICANN on two levels. One, because of the decision, or lack of decision, we made on a new top level domain called dot wine or [French] in French. They're very upset with how we're handling that. So are many other European countries. So it's not just France, there are other European countries that are upset with that.

France then took that particular argument, and they have a new minister called Madam Axelle Lemaire, who then took that issue and wrapped it into a bigger question on ICANN's, let's say, global position and legal status. Both, frankly, valid issues that we should address. So I'll touch on them very quickly and then tell you how I'm handling this with a positive spirit. Right?

The first is on the dot wine thing, governments tried to stop these applications, but the way the GAC works is thankfully, through something called consensus. So unlike multilateral governmental bodies, people in the GAC do not vote, and should never vote because we don't want to necessarily build a new UN at the GAC.

That's not the idea. The idea is to build a consensus model. Just like we make decisions in ICANN through consensus, we hope the GAC continues to work through consensus.

Now, to reach consensus, it means that amongst them they have to agree, this is an issue they agree on. So when they're all fighting about dot Amazon, they build consensus, and the Latin American countries convinced everybody else that dot Amazon should not go to the company. Amazon is there. And because they came up with a consensus, we stopped the application.

And the company Amazon was very upset, but, you know, there is consensus. So we took that GAC advice and applied it. All the Europeans couldn't get the GAC to build consensus on dot wine. So I had no ability to stop that application legally. I have nothing to stop me from moving forward. Now, ICANN should not only function on legal terms, we should also be here for the public interest.

So as soon as we realized the Europeans were very upset, even though they were screaming at us publically and doing all of this, fine, that's their job, that's their role, that's their prerogative, we in the background started getting all of the effected parties, which are the people who own the [inaudible] in all the wine countries, you know, Champagne, etc.

We got the business people and the trade unions that are responsible for these industries, to start working with the new applicant quietly in the background to solve the problem. And guess what? Yes, governments are not in the room, but it's going very well. Very soon, we will probably have a quiet solution in the public interest.

To protect these people, but at the same time, allow this to move forward in a structured way, that serves everyone. So we informed the government of France, we informed others, and it seems like they're now understanding that we're doing our best, and they're standing down on the issue. On her bigger question, which she is proposing the government of France to make ICANN a global organization, absolutely.

We are, the whole accountability process we started is for that. So I called the minister myself. And I call her regularly, she now gave me her cell phone, so we are very engaged. And I invited her, a week ago, I said, "I appreciate your criticism. I need your criticism. If we don't embrace your criticism, we can't get better.

So please get involved, instead of fighting in the press, come and join us. Participate in the process. Make us better." And she accepted our invitation. So I'm very pleased. Again, positive spirit, engagement, humility in service, advances things. We don't take political, you know, standings. We just get engaged, and it's going very well now. It's much better. One last question.

UNIDENTIFIED SPEAKER: Thank you. This, I'll make it brief. You mentioned something about next week's meeting in Korea. And we saw resolution 133 during [inaudible]

in 2010, which says the [position?] of the multi-lingual domain names. And this year we're having a proposal from some European countries about more ITU working on this kind of thing with organizations, that's how it's phrased.

Instructs the [inaudible] and bureau directors to walk, coordinate between ITU and [eleven?] organizations in development of IP [inaudible]…. So, what's the take of that? Because we have those discussions here with different stakeholders and also the same from the GAC. So thank you. For the record I'm [inaudible] from Kenya.

FADI CHEHADÉ: Yeah, so just to be clear, most of what's coming to the ITU's floor will be about development, about working more on the ITU side. So, helping governments understand how Internet governance works, helping… So just, it's more on that side. The calls of prior years to actually have the ITU literally take over what we do, are not there.

And if some governments voice them they will be, frankly, very, very minor. And [inaudible] himself, at two meetings I spoke with him at, publically said, you know, the work of ICANN is going well, and we are respecting the role of ICANN, and we let ICANN go. And it's important to note, I'm sure you've noticed, that in our London meeting, for the first time ever, through frankly, a lot of diplomatic work we did, we convinced China to come at the highest level we've seen at an ICANN meeting.

Minister [Lou Lee?] reports to the President, he's the head of all Cyber Affairs for China, announcing at our meeting, the embrace of ICANN. He

legitimatized ICANN from a China standpoint, and then committing to one Internet for the world. That had never happened before because for the last year, we were fighting that China could potentially move into separating its root.

And now we have a minister at his level coming embracing one world, one Internet, the NetMundial principles, and ICANN, all in one swoop. This changed the game. That put us in a very different place, from a global standpoint, because, and you know the next head of the I2, is likely to be Mr. [Sao?] from China. So having China and us aligned before Mr.[Sao] came on board was a very important diplomatic goal that we worked very hard towards, along with Brazil.

That's why I spent time with President [inaudible], and then went to Beijing, six, seven times in the last few months before London, to ensure we are aligned with these important global players. So, I'm optimistic. I'm not lowering my guard, and my team is heading to Busan. I was invited but I passed this time because we feel that this meeting is more going to be internal to the ITU rather than effecting Internet matters, so I'm not going to go, but our team is there.

We're coordinating with ISOC. We also agreed, in a move of humility for ICANN, to allow ISOC to lead in Busan. We are working under ISOC in Busan, as a way to show that we respect ISOC and their role in that particular form. And it's working very, very well. I must run. I would love to stay more, but I'm very happy to have met you. Thanks for listening. Have a wonderful day.

[Applause]

JANICE DOUMA LANGE: And now…

Lars, I'm going to go ahead and have you introduce yourself. Or not.

LARS-JOHAN LIMAN: Hello everyone. This is supposed to be on, is it? Yes. Just closer, okay. I'm Lars-Johan Liman, and it's difficult to pronounce even in my own language, so don't even try. I am one of the co-chairs of the root server system advisory committee, which is one of the advisory committees to the Board.

I work for a company called Netnod. We are based in Sweden, in Stockholm. And we operate one of the 13 root name servers installations in the world. I should actually join Fadi and say, I'm very glad to be here. This is one of the things in the week, which is a very busy week, that I really look forward to because what I see in this room is curiosity and energy and really wanting to engage.

And I don't always meet that in the hallways, so that's fun. Another thing I really like is questions. So, when I say strange things, if you have any questions, right now, after the presentation, when you meet me in the hallways, just stop me and ask. I like that. It's fun.

So Janet, how much time do we have? Just to know where…

JANICE DOUMA LANGE: Guys, is there a session right behind us? For my tech team, is there a session, hi there. Is there a session right behind us? Do you know? A session coming in? No, okay good.

LARS-JOHAN LIMAN: Okay. All right. But the target is still 9:00 ish. Good. So the root servers in the DNS system, they sit above the TLD layer, and they, in the technical system when a client wants to find out information about a domain name, many times a query has to be sent to a root server, to find where the TLD servers are.

And the root server contains just pointer, just references, to where the other servers are for the TLDs. That's basically the only thing that root servers do. So a root server configuration is actually very simple. And the content of the database is also very small.

I used to be able to say, maybe two years, three years ago, that there were 300 top level domains, now we've doubled that with the new gTLD program. But we're still in the hundreds. And any TLD will have thousands upon thousands, if not millions, of domain names in them. So the root part, the database that we store in the root servers, is very, very small, but it's also very popular.

So, if I just look at the servers that we operate in Sweden, so we're one out of 13 letters, 13 server constellations that you can ask. If I combine all the servers in our system, and that's roughly 50, we respond to 40,000 queries per second, 24 by seven. That's 3.5 billion questions per day. As a colleague of mine put it once, trying to read the log is trying to read the newspaper in a snowstorm.

It used to be, I've actually been in this business longer than I would like to, 20 plus years ago you could actually read the query log, as the queries came in, tick, tick, tick, tick, tick. That's not the case anymore. Okay, so the root server system advisory committee. It's an advisory committee to the Board.

And, yeah, let me see.

We are an advisory committee to the Board, and we have a very narrow focus. This is a different, if you compare us to other advisory committees, but we have a very narrow focus, and it's actually stated here, the role of the root service advisory committee, is to advise the ICANN community and Board on matters relating to the operation, administration, security, and integrity of the Internet root server system.

And that is a very narrow focus. So if we look at it, and drill down a bit…

More specifically on matters relating to the operation of the root servers, and we do interact a lot with the technical community. So for the longest of time, the RSAC was meeting, not at the ICANN meetings, because this is, or at least, used to be, not the technical community. The technical community often meets at other conferences, for instance, the IETF, the Internet Engineering Taskforce, which works with certain standards [written out as one?].

But we don't only focus on the servers, we also look at the entire process of creating the root zone. The zone is the actual database. In technical terms, in DNS technical terms. So, we look at how that database is generated by the IANA, IANA part of ICANN, and how its

authorized by the US government still, and that's what we hope to remove here in this ongoing effort. And then handled by VeriSign, who operates two of the root name servers, but they also have a contract with the US government right now to do this technical work of generating the zone file.

And from there, it's distributed to the other 11 other organizations that operate root servers, and then further on the actual machines. So this is a fairly long path, but RSAC has the entire path in its scope.

So what do we care about? We engage in threat assessments and risk analysis. We respond to requests for information, and advice, and we report periodically, and also make policy recommendations, because it's not always obvious to people who do policy for names, that that policy could have a technical implication on the root servers.

It sometimes happens. One of the things that actually does have impact, is the new gTLD program. Suddenly you start to create a lot of new TLDs. Before that, this was… The number of TLDs was fixed for 10 years, 15 years. Nothing happened. There were changes in the technical parameters for each TLD, but we didn't have any new ones. And now, we're changing that curve to something completely different.

Our systems, root server operator systems, were designed for a stable root zone. And when you have a handle on that. Now we're changing the curve, this is something new, we have to look at that, we have to adapt, we have to make sure that we are prepared to participate in this new program, and we have. That's done. We have done careful research, we have involved all the root server operators, and everyone is involved. This works just fine.

So we are one of the advisory committees to the site of ALAC and SSAC, the stability and security advisory committee, but they all have much wider scope than we do. So we are actually a very small organization. But still, we participate as an advisory committee, in the various ICANN related forum, so we are definitely in during the NTIA stewardship transition. Because that's something that may affect us.

The process, generate zone, authorized NTIA, VeriSign generates the data over to us. Actually the NTIA is involved. But what happens if we move that from the process. We need to be in that loop that we don't create a nonfunctional system here. The stability and the security of the root service system is our first and primary goal. This must never stop.

This must always operate. And we have some liaisons for the Board of Directors, they were in the nominating committee, as any other advisory committee. So, the organization of RSAC has recently undergone a transition. We used to have a rather different organization before, but we realized that didn't work. And we also received some comments from the general, the periodic review teams that ICANN has, that we reviews the various committees work.

So what we did was to rearrange and create a new system, where we have RSAC, the formal committee if you wish, which is composed of appointed representatives from the root server operators, alternates, and also liaisons to various other groups. And I'm going to go through that.

But the new thing is we upgraded something called the RSAC caucus. This is a body of volunteers, subject matter experts, that we can draw from when we need expertise in our work. When we need someone to

do some analysis, when we need someone to write documents and so on. So we have a pool of people, where we can ask for help.

And this is a pool that is actually appointed by RSAC, so we have now, we're trying to find a balance here with, which people we need to have in there, and so on.

We've recently also created the procedures document, we didn't have any solid procedures before. We found that that's actually not helping our work, so we've created the procedures document, which was rather recently published. So RSAC, which is a very small committee, it only has 12 formal members, but our task is to select and keep track of work items and appoint work parties from the caucus when we see, when identify, this is something that we need to investigate.

This is something that we need to look at and have a report, or at least, find out that okay, this was not the problem, okay. We appoint work parties from the caucus. We ask for volunteers, and we appoint leaders for this work party, and they've given a timeline and so on. And then of course, we take formal action on the results from the work party.

And then the internal practical stuff, appointing liaisons, electing chairs, and creating these processes, and so on. The document is published, you can go and look at it if you think you have a very boring flight home. We actually have two co-chairs to try to share the load. And we are, the first one is Professor Jun Murai, from Japan. He is, unfortunately, not at this meeting, and the other one is myself.

And as I mentioned, we have 12 members, one from each of the organizations that operate the root server. You will know that there are

only 12 members but 13 letters, and that's because VeriSign operates two of them, and this is purely for historical reasons. The process of moving J Root away from VeriSign came to an unfortunate halt 15 years ago, and things haven't progressed since then.

Each of the members can have an alternate, it's not mandatory but it's acceptable. And they get to step in if the regular member cannot participate. But they still are, the alternates are still participating in the meetings to stay in touch with what's going on, and they're quite welcome to participate in discussions and so on.

But if we have to vote, which is extremely seldom, there is still only just one vote per organization. And then we have liaisons to other groups. We have very involved people from the IANA, of course, from VeriSign. Again, as the maintainer of the root zone, and also from the NTIA, we have a liaison, and then also to various other bodies within ICANN, and to the Internet architecture board, from the technical side.

So, as I mentioned, the purpose of the caucus is to be full of experts, and we also, by creating the caucus, respond to improve on the transparency of RSAC. RSAC has been seen as a group who are hiding and are in the corner, and not really approachable. So we want to really change that. One way to do that is that every member of the caucus will have to make a statement of interest, and so to speak, tell the world who they are and which they're wearing, why do they want to participate in the caucus and so on.

And what type of expertise they think they would bring to the table. And this is the framework for actually getting the work done. The members, are all the members of RSAC and also others appointed by

RSAC. And also in order to make it obvious when people contribute documents that we publish, it definitely gives credit for the work that is being done.

And there is also a possibility in the documents to state that if that you have a dissenting opinion, if you are involved in the work, there is a document produced where you say, "No, I really, really cannot subscribe to what you are saying here. This is not right." But the entire rest of the group thinks that that is the thing to say, you can state that, "I disagree with this." And that will be noted in the document.

That person X does not agree with this. And the caucus receives a scope document where, with instructions for the work to do with timelines and instructions with what we hope to achieve and so on. And this is, can review it in the process, that you can adapt it if we have to.

So we're now running two work teams for two documents, and we're very curious how that is going to turn out. It's looking really good right now. The caucus membership is handled by a membership committee. Three people, and according to the rules, at least one of them has to be a member of the formal committee. And they can string, they receive the statements of interest, they screen them, and they put them forward for the group to appoint the people.

I'm going to skip a bit here in the interest of time. This is a, let me see. This is a good slide. Should you be interested in participating in this, we want to be open. We need new types of expertise. We need people with new eyes. We have too many of the old farts sitting in the caucus. Gray beards, 50 year old white males like myself, and we need some fresh blood in there.

You bring new perspectives, and we want to see more people in that. So, if you're interested, do look at the URL at the bottom here, and if you're interested, send a message. If you have questions, send a message to the email address here, which of course, which is the membership committee and they're happy to talk to you.

I also want to mention the two pieces of ongoing work that we have. We have two documents that we are working on. The first one, is a document which is intended to tell the Internet community what to expect from a root server. What is it we do? What should you expect from us? And so the people don't have strange ideas of what the root servers are. There are lots of strange ideas out there.

So we want to make a public statement, that this is what we do and this is what you should expect. Now it turned out, when we started to work with this, that there have been such documents. There have been in the form of specifications for root server operations, and it's turned out that it's not such a great idea to write such documents because they age.

Internet is evolving all the time. The previous generation of root server instructions, so to speak, is from the year 2000. That's 14 years ago. Let me tell you that the Internet looked quite a bit different 14 years ago, so these instructions, they simply don't work anymore because that's not the environment we work in.

So we've tried to sit down, look at this, and break the problem apart into two pieces. One piece is the operational expectations of how we serve in, I'll skip ahead here actually to this page.

The document is with the infrastructure around the root server, accuracy. We promised to serve accurate data, we promise that we will never, ever change the content of a root zone. It should be available, there should be standards for security. There needs to be communication between the root server operators, to synchronize, and also with the outer world, like I'm doing right now actually.

And also documentation and stuff like that. This is, this all pertains to operations, but there is also a protocol side. If you send the bits looking like this exactly, how should the bits be formatted, then you get them back. Should you perform service over IPv4, IPv6, TCP, UDP, all these protocol parameters, are specified in a different document, because it doesn't sit with RSAC to specify the protocol for DNS.

That's on the IETA and IEB side. So we're not actually going in tandem with two documents. One by the IEB, and one by RSAC, and we're going to publish them in parallel, and say, "Here is the protocol side, here is the operational side, and this combined is what you should expect from the root servers."

We have a document that pertains to measurements, as I said, in preparation for the new gTLD program, we did a lot of research. We took something for the root scaling study. And one of the recommendations from that study was to measure what's going on with the root servers. And of course, we do that, all the time, all the root server operators do lots of measurements, all the time, but they are individual for each root server operator, and we saw the need to have something that is common between all the root server operators, so

that we measure the same things and can compare them between the letters.

So we've come up with a list of things that we would like all root server operators to collect in the same way, so that we can compare the numbers. And they are query load, the size of packets, and some properties in the DNS, so that we can have long term trends. We can see what happened five years ago, what does it look like now, and make projections into the future.

The system is probably going in that direction, then we know how to adapt to that. As I said, we all measured, some of the root server operators publish this on public websites. This happens to be K root because they have nice and colorful drafts.

You can find your way through some of these statistics, if you want to look at them and think it's fun, by going to this web page. So www.root-dashservers.org. It has a map where we try to keep updated all the cities of where there is a root name server of some letter. So this is a joint effort by the root server operators. And further down on the page, this is not a large page, but further down on the page, there are links to all the root server operators, as you can see, the addresses, and if they want to give you some special information, ways to reach them and so on, that's the place to start looking.

I think that is actually my final page. I am quite happy, if time allows, I'm quite happy to take questions and comments.

This is the fun part.

UNIDENTIFIED SPEAKER: Good morning. Congratulations for the presentation. My name is [inaudible]. I'm an ICANN fellow. Actually, I have three quick questions for you. The first one, can you please advise, give additional explanation about the difference on the work of the SSAC and RSAC?

The second one, I had concern about world key rollover. Can you please give us an explanation about this? The third one, for the caucus, which background, people, background are you expecting to take part of this caucus? Thank you.

LARS-JOHAN LIMAN: Okay. I'll try my best. To compare SSAC and RSAC. SSAC, the security and stability advisory committee, has a much wider focus than RSAC. SSAC looks at things that pertain to security and stability for the entire Internet, in all levels, and all places, and they look at this from a broad perspective. So, for instance, you may have heard of the heart bleed bug.

That was a bug in the security code used by many browsers and software vendors. That's definitely something that SSAC would care about, whereas RSAC says, "Well this is not a problem for the root servers. We don't use that code. The system is ticking. This is a problem outside the root service." So we have a much more narrow scope.

Also, for instance, SSAC would look at name collisions, if you have a top level domain that's similar to something that's used inside a cooperation. You can possibly have problems when you establish that

new TLD. To us, that's not a problem. The root service keeps ticking. We don't see a problem with that. In our little box.

So SSAC has a much wider scope. That said, sometimes there are overlapping interests. That's why we have a liaison to the SSAC, so we have a very close relationship with them. It's actually so close that the chair of SSAC, don't tell anyone, the chair of SSAC is my boss.

I am not lying when I tell you, his room is next to mine. We have a very close working relationship. He is also my friend since 20 years back. So that works. So that's for SSAC and RSAC. Root key rollover. Okay. As you probably know, the DNS system, in the root zone, and in many, but far from all, many of the TLDs have additional security feature called DNSSEC, or secure DNS.

This is a system where you add information to the DNS to be able to validate it. So when you receive the information, basically you don't know where it is coming from. It ends up on your computer and you have no idea where it came from. You may think you do, but you actually don't.

Beyond the end of your physical wire, you have no idea. But by using this technology, you can verify that the data you have in your hand, that you received, is actually accurate to the extent that it's accurate in the end where people publish it. it doesn't mean that it's actually accurate down to the data, but if you put something bad in the DNS, it will end up bad on your computer.

But it will be the same badness as was published. But usually, that's unusual. So, DNSSEC uses crypto signatures that we add to the DNS

data to give the client a possibility to verify that the data is correct. Now the crypto keys we use, are often routed. You change the key.

You use one key to do signatures and you say, "Okay, this key is getting older, we need to have a new key." And we add a new one. But the process of adding a new one is a bit complicated, because if you just start using new key, the client side doesn't know that you're using a new key. So suddenly it says, "Oh, you're signing with the wrong key."

So doing this rollover, going from an old key to a new key, is a somewhat complicated transaction. Not so much on the server side, but on the client side where you have to follow, okay, he is now stopping use, he's using both, and then he' stepping over to using on the new one, and so on.

So it goes through a number of steps which are clearly defined, but we need to exercise them to make sure that they work. For the root zone, there is a master key, which has never been changed for two or three years. We don't see any risk with it because as far as we know, it has not been compromised.

No one else has that key, so no one else can lie on the Internet and tell us strange stuff. But, it may happen in the future. So we may have to change that key, due to some unforeseen events. Suddenly someone steals the key, and we need to have a new one. And at that moment, we have to go through the process. If we have never tested it, and we don't know how it works, it may break.

And also the Internet is growing all of the time. So we want to test this when the number of secured NS users is rather small, say a couple of

million, instead of the entire Internet, say four billion. So if something breaks, it hits a smaller number of people. So I would, I'm a proponent.

I would like this to happen as soon as possible, that we rotate the key. Controlled, informed, broadcasted, everyone should know what's going on, but we shouldn't wait. We need to exercise this every two years or so. Some have been continued to know that the machinery works, because if the spare machine really that we have the new key, sits there for 10 years, we don't know that it works.

Root key rollover. You also… Did I understand you right? You asked which type of profile, which type of people we expect in the caucus? Actually, we would like a rather broad profile, not only people who are DNS experts, we have those already. But people who work with, for instance, registry services, these who operate TLD registries, because they put in the data that eventually turns up in DNS servers and so.

We also would very much like to talk to people who operate service providers. They are on the client side. The resolvers to the ISPs that talk to our root servers, how do they see them? They are our first and foremost customers, and then they provide back to the end user. But they are the first interface our servers talk to, and we would very much like to see how do they see our servers? How can we improve the root servers through the ISPs?

And also, there is one more. Sorry, that dropped out of my mind.

JANICE DOUMA LANGE: I just want a quick shout out. We are at 10 after nine. I just checked, the next event is the NTIA transition at 10. So we're fine here. The tech

team has kindly said that they're fine, and please tell us if you're not. You're good, all right. So we have Estefan, Gloria, and Sarah. Was there anyone else in the queue? I got you Wanda. Allie, were you in the queue?

ESTEFAN: I am Estefan from Argentina. And I came from South American. Nowadays many governments in the region, are speaking about a [inaudible] and root servers. And that is why they're seeking to request new root server in their territories. Do you think it is an appropriate approach?

LARS-JOHAN LIMAN: I definitely think that there should be more root servers, and that they should be spread across the globe. I am somewhat… I think that one should place root servers for technical reasons. And to have a root server in some region is something that can be valuable in case of crisis, when a region is cut off. I am somewhat careful with coupling that to the notion of nations, because the Internet that's sees national borders.

The Internet is not designed by national borders. It has properties where borders are, but it doesn't always collide with nations. So, I am very positive to deploying more servers, and to create a more, how should I say? A denser pattern of servers. And there are, today, areas where that can definitely be improved. South America is definitely one of them, Africa is another one.

We are working both with AfriNIC, trying to find places to deploy servers. We are working with LACNIC to find better places to put

servers. It comes, deploying a root server is maybe trickier than you think, because we have to find the right spot with people who can handle it, connectivity, someone how pays for it, so on. And it can often be solved, but it's often a very slow process.

So I'm positive, but I'm a bit careful with connecting it with nations, because that turns it into a political thing, which I really would like to avoid. This is not a political tool to fight with.

SARAH: Hi. So my name is Sarah, I'm form Uganda, and I'm AFRALO. I wanted to ask about how root servers are created. Who controls that? Because I know for a very long time there was a specific number, and after some time there was the rumor about one root server from China. So who determines when there should be a new root server? And things like that. Thank you.

LARS-JOHAN LIMAN: I have to ask you to detail your question a bit. Were you asking who determines where the root servers are deployed?

SARAH: I know for a very long time there was a specific number of root servers, right? From A to I think M or something. Then sometime this year we heard that there was a new one from China. So who determines that there should be a new root server?

LARS-JOHAN LIMAN: That is something that RSAC would have to look at, and I'm not saying that RSAC determines where they go into places, but RSAC will have to look at the process, because for a good number of years, and I think we're counting up to 15th year, there haven't been any new root name servers.

And 15 years ago, the Internet was something completely different. ICANN did not exist. It was handled in totally different ways. So, currently there is no well-defined process for this. And finding that process, finding out who is going to decide it, is something that I see that ICANN, sorry, that RSAC would have to look at, probably together with other groups and constituencies, but it's a hot potato.

And for the moment, there is no well-defined process for that.

WANDA: Wanda from the Dominican Republic and the Caribbean. I am thinking, you work with the root servers, the top ones. Are you also involved, because we, copies in different regions? Because I was aware that, in my country, the Dominican Republic, there is a copy for an L root server. And do you get involved also with those copies? And if so, can we have more than one in one country?

LARS-JOHAN LIMAN: I, if I now turn my hat and switch on, say now NetNode. I operate I root. So I am involved with all the copies that are copies of I root. Now L root is operated by ICANN, so there are people within the ICANN staff that deal with L root, and I'm happy to introduce you to them if you want to. And for each sector, that sector where to put copies.

It's absolutely possible to have multiple copies in one country. You can have multiple L roots, or you can have one L, and one I, and one F. Works just fine.

JANICE DOUMA LANGE: Are there any more questions? Go ahead.

UNIDENTIFIED SPEAKER: Yes, good morning. My name is [inaudible] from the Caribbean also. You've mentioned that our regions, and like Africa and the Caribbean region, that it has more to do with nations, political issues, rather than the fact that it's possible to place R root. What are the ideal conditions to, in order for an island in our region to be able to put… Deploy more, yes.

LARS-JOHAN LIMAN: Now I again, I have to speak as NetNode because one thing with the root server operators, and we should be careful here. RSAC does not speak on behalf of the root server operators. They are each their own organization, and RSAC is only a way for them to cooperate to give advice, that's what RSAC does.

Now if I speak as NetNode, I know how we deploy servers, and I can tell you what's ideal for us. I would guess that it's similar for the others, but we are not all quite alike. So I can tell you what goes for NetNode. And that is, that we can find a local community where the current service could be improved, so we don't want to place a server next to another one we have, because that place is already served by the first one.

So a place which is, where service can be improved. And that where we actually will improve service by putting a server there. We are positive is there is an Internet exchange point, because by deploying at an exchange point, we can reach out to many service providers in the area. So exchange points are good. We need to find someone who can help us, because we will need to put a machine in there, and we do almost all of the administration of that computer from Stockholm, so it's not a problem except when it crashes.

We need some help with resetting the machines, swapping hard drives, connecting wires and stuff like that. We need to find someone who has the knowledge, the networking knowledge to hand that, and finally, we need to find a financial solution. That does not mean necessarily that we pay. It does not mean that the site pays. We need to find someone who can pay for it.

UNIDENTIFIED SPEAKER: There is a financial concern that, in order for the region, [inaudible] has an ISP and is connected with [M6], Amsterdam. So it's like, what do you call it? It's linked directly to the [inaudible] in Amsterdam. But it's very costly.

LARS-JOHAN LIMAN: Yes it is. And to address that problem, we, again, speaking as NetNode, when we deploy… Up until now, we've been deploying a rather large system with several servers and so on, and they're fairly expensive, and it's a lot of hardware to ship across the world. But we are developing a

new much, much smaller system, which is smaller, and cheaper, and easier to ship.

Just to be able to cut down on costs, to be able to limit the amount of space we need in the computer rooms, and so on. And we hope to be able to start deploying those after the turn of the year. And I know that some of the others are going in the same direction, with smaller systems.

To have many small systems, that means there needs to be a few big systems.

JANICE DOUMA LANGE: Are there any more questions in the room? I have one remote. So, Liman we have one of our alumni coaches in the room [inaudible] from Pakistan. Does RSAC, is it also responsible to control the root zone in root servers? So is RSAC responsible to control he root zone and root servers, or is it controlled by the root server operator or some other organization?

LARS-JOHAN LIMAN: It's actually two questions. We have to take them one by one. The root zone definitely know. The root zone is controlled by IANA, and they publish it, they sign it with signatures, and they publish it, which means if anyone after that, tries to modify content, you will notice. If you do the validation and check the signatures, you will know that someone tried to change things.

So we receive data from the IANA via VeriSign, to the root server operators. We change nothing. We do not control the content of that zone. If you start to look at the servers and server operations, RSAC does not control that either, absolutely not. This is the various organizations that operate in root server, is that one by one, have the responsibility to operate their letter.

And what RSAC does is to create a forum where we can discuss common things that we want to send as a message to the outer world. The expectations document. This is what you should expect for us. You should, we create a common understanding of what you should expect from the root service. Or we give advice to the Board on policy that they need to implement for the system as a whole to work well, but RSAC is not a vehicle to impose regulation on the root service.

It doesn't go in that direction. And there is no other organization for that. You have to talk individually to the 12 root server operators. That said, as far as I know, most of us are very happy to talk to you. So if you have concerns, again, come and talk to me. If you want to talk to some other letter, I'll happily introduce you to them. I know them all.

JANICE DOUMA LANGE: Any other questions? Okay. I keep looking back at Allie, because I don't know why, she seems engaged. So let's take our last one…

LARS-JOHAN LIMAN: And it would have to be the last one because I need to go to another session after that.

UNIDENTIFIED SPEAKER: I'm [inaudible] from Brazil. I would like to know if RSAC plays any role on advising ICANN or, when it comes to adding new gTLDs for example. You probably conduct tests on each root server before adding like hundreds of new top level domains in the root. So I would like to know, how are those tests conducted and if you do advise on how long this tests will be conducted, so that the policy and the benefit of the public.

Like people who… Once you get new top level domains, will know previously how long this test will take. Did you understand?

LARS-JOHAN LIMAN: I think I did and I will try to answer. Actually RSAC, what RSAC did was to participate in the root scaling study a couple of years ago. That kind of laid out the framework for adding new gTLDs. And what we said there is that we can receive number of new delegations per year, and that's actually a fairly high number, so the bottleneck, the thing that makes it go slow, is not the root server operators. It's ICANN.

ICANN processing or doing all of the paperwork with every application. We, as RSAC, we're root server operators, we do not check and verify things. We expect that to be done when it hits us. And there are delegation, or pre-delegation checks performed. They are performed by ICANN, by a contractor. That contractor happens to be the Swedish top level domain. Again, friends of mine, but it's not NetNode, it's not us.

It's my friends at the other end of the city. But they are working with ICANN under a contract to perform these pre-delegation tests. And how long that takes, depends on the results of the tests. That's nothing

that I can have an opinion or an assessment of. But when the new gTLD passes these tests, then we expect the technical problems to be solved. And they will be put, eventually, in the root zone by the IANA, and end up in the database that we get through VeriSign, and that all happens automatically.

I don't even notice when there is a new TLD delegated. It just appears. And that's fine. So we had our input at an earlier stage. And now the mechanics just work, so when it comes to a full operation in the root, tests are already done. We don't have to take part in those tests.

JANICE DOUMA LANGE: Thank you so very much for all of your time. This was fantastic. And we'll let you go now.

LARS-JOHAN LIMAN: And thank you so much to all of you. Very good and interesting questions. I love this.

[APPLAUSE]

And I will repeat, if you have any more questions, unfortunately I cannot stay behind this, but I'm around all day today. I'm actually in the house tomorrow all day as well. I am happy to talk to you. Just, you have my email address somewhere, I guess, so just send me an email, just walk up to me. I am at your service.

JANICE DOUMA LANGE: And just as a reminder, yeah. So I'm compiling everything, and so this is our last, so all of the presentations will be in one PowerPoint, including the email addresses for all of our speakers and their coordinating websites. So there will be easy access for everyone, and I bet I'm getting them for all the next gen as well.

So you guys will be included in that list. So have all of that, okay? So guys, again, you've been awesome. Great morning, wonderful. Since we didn't get a good group picture last night, due to our communication issues, if we like to gather and have our one picture for the website, let's do that now before we go ahead.

At 10:00, NTIA transition is where I would like to see your friendly faces. Thank you to our tech team for hanging in with us. Have a good day.

[END OF TRANSCRIPTION]