
SINGAPORE - Welcome Ceremony and President's Opening Session
Monday, March 9, 2015 – 08:30 to 10:00 SGT
ICANN – Singapore, Singapore

NANCY LUPIANO: Ladies and gentlemen, I would like you all to welcome, please, board chair, ICANN, Dr. Stephen Crocker.

[Applause]

DR. STEPHEN CROCKER: Good morning, everybody. It's a pleasure to be here in Singapore. We're here at ICANN 52. We've been here a few times before, including at the outset of the ICANN series of meetings.

I take particular pleasure in welcoming Dr. Yaacob Ibrahim, Singapore's Minister of Communications and Information. We'll be hearing from him in a few minutes.

I would also like to thank two organizations that have been instrumental in helping us put this meeting together, the Singapore Network Information Center, SGNIC, and the Infocomm Development Authority of Singapore, IDA. These groups helped us organize ICANN 52 here on fairly short notice when we had to delay our plans to go to Marrakech but our hope is to make it to Morocco next year. Nonetheless, it's still wonderful to be here. This is our fourth meeting in the city.

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A few years ago, we had very scant presence here in Asia. We now have focused on Singapore as one of our three tri-quarters, as we call them, one of our three hubs for operating ICANN as a global organization. Los Angeles, where we started, and Istanbul is the other major hub.

So our presence here in Singapore has grown quite a bit and will continue to grow.

We now have, in the hub office, about 15, 16 people, I think, and 23 total for the region headquartered, as I say, out of the office.

A lot of things have changed, but one thing has not changed, which is our commitment to constantly evolving and improving our organization, with an emphasis on operational excellence, inclusivity, accountability. These are the measures by which ICANN will ultimately be defined.

We all know that a major part of ICANN's mission is to coordinate the top level of the Internet system of unique identifiers. That's no small mission when you now consider that there are more mobile devices on earth than there are people. The Internet of things is coming fast, and those things will want Internet addresses and names.

Today, we will learn from some of our community leaders how we are progressing.



In a few minutes, we'll hear updates from two vital supporting pillars of ICANN, the generic names supporting organization and the country code names support organization.

Sometimes it's easy to forget that domain names are not the only part of ICANN's mission. Others perhaps even more vital, but too often overlooked, functions include the coordination of the Internet numbers and protocol parameters.

So in a few minutes, we will also be hearing updates about the work of the Number Resource Organization, Address Supporting Organization, and Internet Engineering Task Force.

Before we hear from these community representatives, I'd like to tell you where we are and where we are going on several different issues.

One of the things that will affect all of us is one of the more mundane, in a sense, which is the new meetings schedule.

We've evolved over time. This meeting, as all of our meetings, is one of three uniformly sized meetings -- at least we try to make them uniformly sized -- that rotates around the world. After extensive public comment, which I think many of you have participated in, we are adopting recommendations from the meetings strategy working group.

Beginning next year, the first meeting of the year will be similar to this meeting, and then the subsequent meetings -- also, we will



have three per year -- we'll have a second meeting of the year which will be shorter and focused on policy development work by our supporting organizations and advisory committees, as well as cross-community interaction and outreach.

The third meeting of the year will, in some sense, compensate for the shortness of the second and will be slightly longer in duration and will be oriented towards showcasing ICANN's work to a broader global audience.

As a consequence of this evolution in our plan, the second meeting is likely to be somewhat not only shorter but perhaps a bit smaller and will give us an opportunity to be in locations that are not currently feasible.

Another key development which I can't imagine anybody sitting here is unaware of is the focus on the transition of the stewardship of the IANA function.

We have been -- we and everybody else has been working on devising a plan for the transition of this function, and the work is in high gear.

Issues like this invariably generate heat, and discussion around the transition is very often heated, but it's also generated quite a bit of light.

We are actively, along with everybody else, sorting out the issues, and I have to say that even for as active a community as we all



have been over our 16 years of existence, I don't think I've ever seen the amount of energy and enthusiastic involvement and commitment and honest dialogue -- sometimes more honest than some of us can stand, sometimes -- trying to sort out these issues and move to our next phase.

So I have to say I'm quite in awe and feel obliged to say thank you to everybody who's involved.

The coordination group, the IANA stewardship transition coordination group, or ICG, is pulling together the various pieces of the proposals coming from the different groups. Two of the three organizations have submitted their proposals, and the community working group for the stewardship of names is also moving forward.

This issue is important and it's important both to get it right and to get it done. Sometimes those are competing concerns, and I think that we all embody both goals and the question is how to do it and do it well and also how to get it done.

There is a parallel track on accountability that includes, itself, two streams of work. One is focused on the mechanisms that must be in place as part of the transition process, and the other is focused on some evolution in our accountability that may take longer to put in place.



There's quite a few sessions in this week that are devoted to both of these things. I don't think I have to urge you to get involved. It may be the other way around, that we have to try to divert your attention in some respects.

Not to be lost in all of this is that we've had, for several years -- more than five years, actually -- a very important set of accountability mechanisms that are called the Affirmation of Commitments, which involves a series of different reviews on a repeating basis.

The second accountability and transparency review and the first security and stability and resiliency review and the first WHOIS review were all completed about a year ago, and we are working very actively and aggressively on implementation of the recommendations that came from there.

It is sometimes not so clear what that implementation process looks like because a lot of work goes on behind the scenes, a lot of details have to be tracked down.

I can tell you from the perspective of the board that we take these -- all of these very, very seriously, and that in addition to the instructions that we have given to staff to implement and the expert project management that exists within the staff, we have also instituted, at the board level, a -- our own very tough-oriented review asking the hard question, "So where are we and why are we where we are, as opposed to where we think we



ought to be," and we want to ask those questions from the board's perspective in a way that tries to be in advance rather than behind of the questions that you as the community might be asking those things.

So that as I said, we take these things very seriously. We are on your side on these things.

With respect to security, stability and resiliency, the news only gets more frequent and more urgent. We have the massive credit card breaches, the Sony entertainment compromise, and even a spear phishing attack against ICANN itself.

So the issue of Internet security has obviously been front and center in the media.

We're keenly aware of the critical nature of the Internet system of unique identifiers, and we coordinate during this period of increased focus on cyber-threats.

We've invested heavily in those parts of the system -- of our systems that can be directly affected.

We continue, for example, to expand the L-Root. We are one of a dozen different operators of pieces of the overall root system, and our piece is lettered "L." They're numbered "A" through "M." And we have expanded its footprint.



There are now approximately 150 instances of the L-Root around the world, and we are continuing to curate that system, adding some, removing some that are no longer needed, and evolving that into a very stable and strong member of the overall consortium.

Our gTLD level -- service level agreement monitoring system ensures that we're aware of when registries are having issues with core services, allowing us to notify those registries and help in remediation, which translates into helping new registries out before the registrants are affected.

There's lots, lots more to say, but those are the main points that I want to stress this morning, but I also want to make a very personal appeal.

All of the issues that we're exploring here in the coming week are extremely important, and in one way or another all aimed at preserving the smooth operation and growth of the Internet.

This is, as we're all keenly aware, one of the most important enterprises in human history and I do not like coming forth with statements of that magnitude. They sound like pure hype.

In this case, it is completely true. We have affected not only our lives but the lives of everyone else on the planet and for the future. Billions of people, and more to come.



So the issues that we're involved with here, although they have a great impact on each of us that we feel very strongly about, also have a very broad impact, and it's important to understand the diversity of the views that are brought together in a meeting like this.

And that leads me to the point that one of the most important things we can do is to listen, to listen carefully, and to find a way to understand the other person's point of view.

This is the essence of empathy, which is, I think, one of the key things that we should be concerned about. We have to be concerned about transparency and accountability, without question. We have to be concerned about efficiency and effectiveness, without question. But we have an opportunity to go one level above that, which is to be actually concerned and empathetic with what the impact is on others and to build that into our own processes.

It is an opportunity that is afforded to us in a way that would not be so easy if we were a governmental organization. It is one of the positive effects of living in that very interesting space between being highly bureaucratic and process-oriented on the one hand and having the flexibility of a private organization on the other hand.

So let me emphasize again that listening is as much an important thing to do as talking, we need to appreciate each other, and I



think that and I hope that we are all aligned on that, if nothing else.

With that, let me wish you all a good and productive meeting and let me invite Minister Ibrahim to join up here.

It's a great honor to introduce Dr. Yaacob Ibrahim, Minister of Communication and Information for Singapore.

As you have seen in the news a couple of weeks ago, Dr. Ibrahim will have a couple of additional duties beginning in April when he will head up Singapore's newly created cybersecurity agency.

So Minister Ibrahim, congratulations on having your workload dramatically increased.

[Applause]

DR. YAACOB BIN IBRAHIM: Thank you very much, Dr. Stephen Crocker, chairman of the ICANN board; Mr. Fadi Chehade, President and CEO of ICANN; ladies and gentlemen.

It is my honor to welcome you back to Singapore for the 52nd ICANN public meeting, coming just a year after ICANN 49.

The value of the Internet economy is projected to hit U.S. \$4.2 trillion in a year's time, so just imagine that is one quarter the size of the entire U.S. economy.



So once more, we can expect the Internet economy to continue to grow rapidly. In just the past five years, as we have heard, the number of Internet users have nearly doubled and now exceeds 3 billion people. Of this number, nearly half come from the Asia-Pacific region. It is perhaps fitting, then, that ICANN has again chosen to hold its public meeting in Singapore, where developments in our online space make us a microcosm of Internet developments globally.

Since the rollout of Singapore's Next Generation Nationwide Broadband Network in 2009, we have see a truly remarkable explosion of Internet connectivity island-wide.

Before 2009, there were only four Internet Service Providers in Singapore. Today, we have 29 retail service providers offering broadband Internet at highly competitive rates. For example, a 1-gigabyte-per-second broadband subscription retails for just U.S. \$40 per month.

Average download speeds have increased almost 9 times since 2010, and upload speeds have jumped 40-fold same period. Average upload and download speeds are now running within the top three globally, and more than half our residential households have a fiber broadband connection, including my home.

This remarkable growth in broadband penetration, access, and affordability is a result of our Intelligent Nation 2015 master plan which called for a national broadband network that would drive



innovation and productivity for businesses for much richer online experiences to consumers.

Last November, my prime minister, Mr. Lee Hsien Loong, articulated Singapore's Smart Nation vision, a vision for Singapore to be a place where technology plays a seamless role in enabling us to live sustainably, stay connected to one another, and open up exciting possibilities and opportunities for all.

Our national broadband infrastructure provides a solid foundation for us to achieve the pervasive connectivity that will help us attain the Smart Nation vision, but it is not sufficient.

So I would like to highlight two issues that will be key not only for Singapore's Smart Nation vision but also for other connected societies and economies.

The first we have heard is cybersecurity. As Internet connectivity grows and becomes more ubiquitous, and as more and more of the devices and appliances that we depend on in our lives become connected, so too will our reliance on the Internet as a basic infrastructure.

If we cannot trust that our activities on the Internet are reasonably safe and secure, we will naturally withdraw from cyberspace.

So as a country with a Smart Nation vision, we need to strengthen our institutions and bolster our systems against cyber threats.



Safety and security are paramount if we are to fully realize the benefits of greater interconnectivity.

Building and sustaining a secure and trusted network requires concerted effort and close cooperation between the government, companies, and individuals. The cyber-environment is too vast and complicated for any one stakeholder to have complete visibility or the necessary tools to defend against cyber-attacks.

So we're trying to do all of this, and in fact, just two weeks ago, our deputy prime minister, Mr. Teo Chee Hean, announced the formation of a new Cyber Security Agency, or CSA, under the prime minister's office, which I will oversee.

The agency will bring together the government's cybersecurity capabilities and functions to take a holistic approach to cybersecurity. The CSA will drive the development of a sustainable cybersecurity ecosystem in Singapore in partnership with all industry players and experts. So I'm pleased to note that ICANN's Asia-Pacific hub has been collaborating with the INTERPOL Global Complex for Innovation in Singapore to build capacity and expertise in cybersecurity.

Beyond a whole-of-nation effort, the coordination of cybersecurity functions within Singapore is just one piece of the puzzle. Cybersecurity incidents are not constrained by geographical boundaries and we need to be prepared to address cross-border incidents.



As such, the CSA will continue the active collaboration with other countries. At the regional level, the Singapore Computer Emergency Response Team, or SingCERT, is an active member of the Asia-Pacific Computer Emergency Response Team, or APCERT, grouping.

Within ASEAN, SingCERT leads the ASEAN CERT Incident Drill, or ACID. We are also active on international forums and platforms, having been a member of the Forum of Incident Response and Security Teams, or FIRST, since 1998.

Recent international incidents involving breaches of confidential data on Apple's iCloud and at Sony Pictures underscore the need for all of us to work together at home and across national boundaries. ICANN has a role to play here too, as the integrity of the domain name system is fundamental for the resilience of the Internet.

So let me now move on to the second key issue which ICANN has been discussing, how the oversight of ICANN's key role as manager of the domain name system should be transferred from the U.S. National Telecommunications and Information Administration to a more inclusive structure.

Last year at ICANN 49, right here on the same premises, we kick-started the community-wide discussions on the process to transfer key stewardship functions to the global multistakeholder community.



Singapore supports the shift to a multistakeholder model. We have constantly articulated our belief that no one person, organization, or even country has a monopoly on the expertise and wisdom needed to meet the challenges that we are facing on the Internet on a day-to-day basis. Decisions on issues pertaining to Internet governance should be made in an inclusive fashion, while being responsive to the needs of both industry and consumers. Such an inclusive multistakeholder approach will enhance the Internet's role as a catalyst for information flow and economic activity.

This should not be the sole domain of any one stakeholder, whether governmental, intergovernmental, or non-governmental. Governments are important members of the global multistakeholder community and should continue to play an important role alongside other stakeholders. They should implement policies to ensure high-availability access to a safe and secure Internet and create a business-friendly environment for service providers and operators to provide innovative services and cutting-edge infrastructure. This is precisely what we have sought to achieve in Singapore.

At the same time, governments also have a responsibility to enforce laws both online and in the physical world in the public interest.



So one example is Singapore's Prevention of Harassment Act that was passed last year, and that will provide consistent remedies against harassment whether this takes place online or in the physical world.

We are just over half a year away from the September 2015 deadline to submit an Internet Assigned Numbers Authority stewardship transition proposal. I believe the timeline is tight, but I applaud the efforts by the IANA stewardship transition coordination group, or ICG, and the various cross-community working groups in contributing to the development of the transition proposal as well as in deliberating changes to enhance ICANN accountability.

As a host for ICANN's Asia-Pacific hub and both ICANN49 and 52, Singapore is pleased to have been able to support this very important process. SGNIC and the Infocomm Development Authority of Singapore have been actively working with ICANN and other regional organizations on Internet matters, and we will continue to maintain the momentum until we reach the finish line.

So allow me now to conclude. Our experience shows that the Internet has been an important catalyst for a more connected society. The potential benefits are game changing and profoundly enabling. At the same time, in order for us to reap the benefits of the Internet, we need to ensure that they remain secure and



resilient against attacks. To ensure that the Internet remains conducive and safe for organizations and individuals, we will continue to work with all stakeholders. ICANN's Asia-Pacific hub in Singapore has played a key role at the frontline of the issues I have mentioned, despite being just a year old.

Singapore will continue to support ICANN and the multistakeholder Internet community in the stewardship transition and we look forward to closer cooperation with ICANN and other industry players in the area of cybersecurity.

So on that note, it leaves me to wish all of you a fruitful and productive time in Singapore and I wish all of you a good week ahead of discussions and do enjoy the sights and sounds of Singapore. Thank you very much.

[Applause]

DR. STEPHEN CROCKER: Thank you very much, Minister Ibrahim.

1998, U.S. President Bill Clinton released a report entitled, "A Framework for Global Electronic Commerce," which was somewhat revolutionary at the time, the call for the development and commercialization of the Internet by an international cooperation that would be free from government control. And with that ICANN was born.



Please join me in welcoming one of the key authors of that report, former President Clinton's chief Internet policy advisor, Ira Magaziner.

[Applause]

IRA MAGAZINER:

Thank you very much. When I first started speaking at Internet meetings in the 1990s, I was the only one with a tie. Now I'm the only one without a tie speaking. I don't know whether that means I've progressed or whether the Internet community has progressed. I will leave that up to you.

I am here in part to deliver a history lesson, but it's a lesson that's very important for the challenge in front of you. Back in 1994, '95 when there were more people on the Minitel in France than on the Internet globally, President Clinton asked me to head a task force -- a cabinet task force to try to determine what he could do if he were re-elected in 1996 that would help boost the economy long-term. And we identified three major technologies that we thought could bring that long-term growth. Long-term growth in all economies in history is fueled usually by technological advances. In this case, the Internet, the human genome sequencing, which has led to a revolution in biotech and renewable energy sources were the three technologies we identified. And we said that the Internet we thought had the



most potential to move the quickest if we could set the right policy environment.

So we then developed a set of recommendations to do that. They involved trying to make sure that Internet commerce was free of any tariffs in the World Trade Organization. We got a treaty to agree to that; to keep Internet sales free of taxation; to allow for agreements for digital signatures to be recognized legally; to try to avoid censorship of the Internet and allow instead for parents to have controls they could use to protect their children and so on but not have governments engaged in censorship; to try to protect standards to be organically developed by the community, not imposed by governments because governments would inevitably move too slowly; to ensure that privacy protections were there but that they were also growing from the technologies in the community; and a variety of other measures.

Now, the family of ICANN started during a particular two-week period in 1996 when a number of things happened. And I was then at the White House coordinating all this Internet policy. And in the space of a couple of weeks, first of all, at that time, the numbering IANA function was controlled out of the University of Southern California, Jon Postel -- some of you may remember him -- on a contract for the Defense Advanced Research Projects Agency, the Defense Department. And a company called Network



Solutions in Virginia under a contract from the U.S. Commerce Department controlled the naming function.

And during the course of that first week, I received a report from legal counsel that we had retained that said there were 52 different lawsuits working their way through different courts around the world to challenge the legitimacy of the authorities that were developing the numbers and names.

And also the head of DARPA, the defense coordinator, called me and said, We want to get out of this. We don't want to be letting this contract anymore. And the President of the University of Southern California also called and said, We don't want to do this anymore. We are getting all these lawsuits, and we can't afford this. And we like Jon Postel, but we don't want to have this anymore.

I had delegations from a number of industry associations and investors in the Internet saying we'd like to invest lots of money to develop Internet commerce, but we need a more predictable environment. Right now there's unclear governance here. We don't know who's in charge. We don't know if there's security or not. And so we're nervous about investing unless we have a more predictable, consistent environment.

International Telecommunications Union visited and after 12 years of opposing the Internet protocol adoption, they all of a sudden discovered the Internet and said, We want to control it.



And so they wanted to take control of the Internet. And I also had a visit from some congressional delegations saying, America invented the Internet. It's ours. We should control it. We don't want anybody else controlling it.

That was all in two weeks. So at that point, I had two choices, either resign and take a different post or to try to figure out how we were going to deal with that. And we started a process which was a consultation process. Some of you were involved, which eventually resulted in the formation of ICANN.

And what we were trying to accomplish -- and it was a first of its kind organization that fit the Internet. At first, we wanted something that could mobilize the creativity of the Internet. One thing that was obvious is that people involved in the Internet -- and it is still true today -- were, let's just say, individualists. They were very creative, like to get their own way, Libertarian in their approach to the world, and very creative. And they didn't want to stifle creativity. On the other hand, you had to bring some order to it or else it couldn't grow as much as it should.

But we felt that going the direction of an intergovernmental body such as the U.N. would be a mistake because that's a body that represents governments but would not represent all of the individual commercial and individual creative forces that made up the Internet. Also, the intergovernmental processes of the U.N.



often can move slowly and not at Internet speed and what was required for Internet speed.

We didn't think it was right for the U.S. government to continue controlling the Internet because it was regarding an international medium and should be an international medium and, therefore, subject to overall international mechanisms.

So we developed this concept of a private multistakeholder non-profit organization that importantly would be recognized by governments because that was important in order to confer the legal legitimacy that could allow it to deal with any lawsuits that came, recognized by governments but not controlled by governments, and to have it representative of the various stakeholders involved in the Internet.

And that is what then became ICANN. Now, I made the decision when I left the White House, I think correctly, not to be involved with ICANN because if you're involved in helping set something up, in my own view, it would be a conflict of interest to then go work with it. So I stayed away. And others wiser than me and I think with stronger bladders than me took over the many discussions that had to take place as ICANN developed.

But watching it from a distance and being an interested observer obviously, there are two things that are clear. One is that despite the fact that I'm sure each of you could point out all of the shortcomings of the organization, all the mistakes it made, et



cetera, the fact of the matter is the Internet has worked, and the growth has been phenomenal and the growth to WiFi and the growth to mobile and now the growth to the Internet of things. And it has all worked. And you don't read stories about how the numbering system broke down, the naming system broke down. It's worked, by and large, okay?

So you see tremendous success coming from this model. Democracy and multistakeholder processes are never pretty, and they are never orderly. But they're important because stakeholders can then have acceptance of what's occurring and things can move forward, and they have moved forward.

So things I think have worked out pretty well, even though the Internet has grown much faster and in more complex ways than we imagined at the time.

Now, the reason I'm here today -- I've been invited but the reason I came is because we are at a historic point again. We had originally envisioned when we set up ICANN that the U.S. government would give up its authority over ICANN in a period of time. We envisioned it would take place much faster than it has taken place, but we thought that was the right thing to happen. The Internet should belong to a global community, not just to one country's control.

We're now at a point in time where that final piece of the vision can happen. The Obama administration, Secretary Pritzker, and



Larry have set up a process and a set of conditions which we applaud and I applaud. I think they're a fabulous way of proceeding. And so I want to lend support to that process. It puts a lot of responsibility on all of you because you need to now come up with something that can preserve the stability and security of the Internet; preserve its predictability; preserve its innovativeness; make sure that it's not captured by any particular commercial interests; make sure that it stays open and fully interoperable, which is crucial; make sure that while governments have an important stake and say; they don't take control so that political geopolitics distorts the Internet. So you have a hard job to do to make sure that all of that can occur.

But if you can succeed with this -- and I think you can -- it will be something historic. It will be something that 50 years from now or 100 years from now people look back as a real model, not just that enabled the Internet economy and Internet world to take off, but I'm sure one that will be imitated in other spheres of life as well.

So you have a very, very important task in front of you, and I want to urge you to do it seriously, do it quickly. One of the things we learned from the total quality management movement in industry is that speed and quality can go hand in hand. And, in fact, if something delays too long, takes too long, it usually dies. So you can move quickly and at the same time get it right.



Now, I want to finish with just a couple of cautions. Now that I'm an older man, I get to pontificate a little bit.

And the first is, you have a very specific set of tasks. They're very important tasks. They're Scotty in the boiler room of Star Trek. They are the people that are down in the bowels of the building actually making the plumbing and the electricity work. But you don't have to be Captain Kirk out there winning all the Emmy awards, right?

My point is be humble about what you are doing. Don't try to overreach your mission because if you do, people will come and stamp you out. Just keep a low profile. Get the work done. It should be something where your success is that nobody notices because the Internet is working so well. Okay? So stay humble about what you're doing.

Secondly, as I look around this room, although I think you've made tremendous strides at globalizing the Internet, I don't think there's enough of a developing country presence, and that needs to be there. In my current role, we do a lot of work in Africa and southern Asia and so on. The economies there are growing quite rapidly. We need to make sure that the Internet serves everybody and has an opportunity for everybody, not just those who are wealthy and developing.

I still remember when I first came to Singapore in the 1970s and it was a much poorer country at the time. And it's been a miracle



what it's achieved. I think Africa and other countries that are now poor have the same potential, but they need the Internet to do it. So they need to be part of this process.

The third thing I would say is that you need to always reflect on a certain set of principles. The biggest mistake that can happen when people get successful is that they lose their roots. They lose what made them successful. The Internet has always had a bit of rebelliousness about it. There was always a place that was individualistic. It encouraged innovative people, even crazy people, and let their creativity flower, okay?

So make sure that as you become more institutionalized and more successful, even as an organization, that you allow that creativity and that bottoms-up approach to stay and that you listen to the crazies in the room, not to dominate the conversation for months but certainly to have their voices heard.

And, finally, as you yourselves are accumulating a certain amount of money, one of the things we set up in ICANN was that it would be self-financing because that way it would avoid capture, right, by governments or by commercial interests. But you don't want to become the next Apple and have hundreds of billions of dollars in the bank. What you should be doing with the money that you accumulate is to invest in things that serve the Internet, whether that be new research and development to help make the technology better or whether it be helping poorer countries or



poorer people in the world access the Internet. So don't build up too big a stockpile of money because that will also make you a target, and you need to be accountable to the broader community.

So let me finish by, again, just wishing you well in the endeavor that you are about to undertake or that you have been undertaking now for the last six months. The next six months are going to be a crucial, crucial period in the history of this Internet and its ability to transform the world in positive ways. So I wish you good luck. And please be wise in what you come up with. Thank you.

[Applause]

DR. STEPHEN CROCKER: Thank you, Ira. Taking a line from your talk, if we're successful and accomplish everything we want, then we will all forget about you. But in any case, those of us here -- and I think particularly based on what you've said -- understand the enormous debt that we have for the very strong and foreseeing actions that you took and the leadership that you exhibited, you know, roughly 20 years ago now, and it's amazing that we get to set in motion forces that pay off rapidly enough that we actually get to live to see the consequences.



So it's been a very exciting time, and again, thank you on behalf of everybody.

We're now going to do something a bit new. We're going to hear directly from community representatives of the four sectors that define Internet's coordination over names, numbers, and protocols.

Let me invite my colleagues from the community to join us.

We're going to hear first and get an update from the Country Code Names Supporting Organization.

In the 12 years since its formation, the Country Code Names Supporting Organization, or ccNSO, has brought an effective place to build and nurture consensus, technical cooperation, and building of skills among the ccTLDs.

So with that, let me welcome Byron Holland, the chair of the ccNSO, and as you've seen, joining us on the stage here has been the other leaders which I will introduce over time.

So Byron?

BYRON HOLLAND: Thank you, Steve.



Well, good morning, everybody. Here on the main stage of ICANN I suddenly have this urge to take my jacket off and roll up my sleeves. I don't know what it is.

[Laughter]

But I'll resist, I promise.

Seriously, I do want to actually say thank you to ICANN because as that coordinating body, that umbrella of the various constituencies that you see represented here, I think that what's happening this morning is a really good testament, a metaphor of the way it should be, the way it was envisioned, that ICANN could be that coordinating umbrella organization that allowed the respective supporting organizations and advisory committees to do their work, to bring the best to the Internet that each group can.

And I wanted to talk a little bit about the country code community. Within ICANN, it's the ccNSO, the Country Code Names Supporting Organization, which is only a part of the total ccTLD or country code top-level domain community but it's a significant majority of the overall community.

And to understand how we interact with ICANN in general, the ICANN policymaking machine, and then also to think about what we're focused on going forward, I think we first need to look into the past a bit to understand why is it that the country codes, why



is it that the ccNSO, acts the way that it does. Why do we behave in the way that we do. You know, how is it that we interact with ICANN in the way that we do.

And I want to tell you a little bit of a story about how my country code, .CA, operated by the Canadian Internet Registration Authority, came to be. And not because it's unique. In fact, quite the opposite. I tell the story because it's relatively typical of a country code.

It's not the only story of a country code but it's certainly a very typical one.

We heard a little bit about Jon Postel and the old days of the origin of the Internet, and Jon, like for many country codes, was approached by at that time, in a sense, a random Canadian, a guy named John Demco, who was an academic out of the University of British Columbia.

And like many technologists at the time, he was fascinated by this new technology, the Internet and he reached out to Jon Postel and said, "You know, I understand you're handing out country codes. Could I get one?"

And, you know, interestingly, there was no good reason, per se, to give it to John Demco, at the University of British Columbia, just some interested technologist, but likewise, there was no good



reason not to give it to our John, John Demco, who continues to be involved with my company, by the way, to this day.

So Postel delegated the authority to operate .CA to John Demco in the University of British Columbia, and John and a group of volunteers ran CA for 13 years.

They ran it as volunteers, with a server, and literally, I kid you not, a server under the desk of John Demco in the basement of an academic building at the University of British Columbia. And that's how CA ran for 13 years.

But by the mid-'90s, as Ira and President Clinton and others were starting to think about how to manage the Internet more effectively, as it commercialized, it was not sustainable for a band of volunteers to run.

And one of the wonderful things about John is he also realized that this was a -- this was a public resource. It was for all Canadians. It wasn't for John or even his volunteers, his noble volunteers.

And as such, in the late '90s, John and the volunteers and the Internet community -- technical, civil society, governments, the industry itself -- came together in a national consultation to decide how best can we operate this national resource. And the recommendation coming out of that was a private not-for-profit



corporation, and that CIRA was born from that, and would assume the operations and management of the registry.

And the great thing about John and many of the actors in this space is he realized at that time that the national needs superseded his private interests. And that is a common story in the Internet. In the country code Internet.

But as is obvious, CIRA or .CA, rather, and many CCs predate ICANN significantly, and that really has influenced the relationship that country codes have with ICANN.

The other thing that's critical is many of us, most of us, are managed in the public interest in some way, shape or form. And I've told you ours but there are many flavors. We're a heterogenous group, most definitely, not a homogeneous group. As the chairman of the ccNSO, I can assure you of that. But we do generally operate in the interests of the nation. We are generally subject to domestic law and legislation. And that makes us, to some degree, unlike other stakeholders within the ecosystem, in that first and foremost, we are responsible to the land from which we come and have to live within the domestic legislation of that land.

But I think also that the ccTLDs in general and our national dimension provide a really good example of the multistakeholder model.



We are, in a sense, truly the boots on the ground around the world that give true meaning to what it is to be a multistakeholder model.

And how does that impact the way that we operate within ICANN? I certainly get a lot of questions on this issue, like, "Why do CCs behave the way they do? Why do they interact with ICANN the way they do?"

Well, part of it is that very history, right? We're -- we predate ICANN. We're bound by national legislation. The constituting documents of the ccNSO dictate that we're not representative. We don't do policy in the way that our sister organization does that binds everybody within our community. We don't do that.

And therefore, we're more of a consensus-driven environment where we work together, exchange best practices, understand each other's policies, but we don't engage in decision-making that has some binding policy authority over us all, because we're subject to national legislation, and that's paramount.

So really, we're more of a venue for the exchange of ideas and best practices.

The other thing that's important to note there, because of that, most of us, we don't have contractual relationships with ICANN, so we have to work in a consensual way, and that's critical to understand in terms of how the CC community interacts with



ICANN and policy development. And as I mentioned, you know, we are not homogeneous. We may, from the outside, look similar but we have widely differing governance models, ownership models, business models, revenue models. Very, very different across the community.

Much of this is codified, but because of the way the Internet has come to be, much of it is just practice, informal, ad hoc. These creative, innovative activists have been part of that, and how we behave has just sort of taken root over time.

We as the CC community, in conjunction with our friends in the GAC, have done a significant amount of work over the past four to five years in a working group called the framework of interpretation, and that has sought to really bring together all the artifacts of time on how CCs relate to and interact with ICANN. In particular, how CCs essentially are born, how we're delegated, redelegated, retired. Fundamental, existential issues for CCs. And we're very, very near the end of that five-year journey, and we look forward to completing that with our friends in the GAC. Because that is essential in terms of the things that we're thinking about, or what's on our dance card in the year ahead, which is really something that will be no surprise. The oversight transition, ICANN accountability are first and foremost the two main things that are preoccupying the CC community for the coming year, but those, in a sense, are built upon the work that we're doing in the



framework of interpretation, which basically looks at how we come to be, how we're retired, how CCs are transitioned between different managers.

So those are the critical work blocks that we're focused on in the coming year. One is about to end, but is the foundational block -- the FOI -- upon which the other two will be built.

And I know I believe in this room after this session, the IANA transition coordinating group will be having a session, and there's an opportunity for those that are interested to see how the CC community participates in that, and we've been -- we're a chartering organization in that group and very active in it as well.

Also, we hold our ccNSO meetings all day Tuesday, all day Wednesday. They're open. Anybody can come and see them and participate, and I would welcome anybody who wants to understand a little more about the CC community to join us in those meetings.

So that gives you a quick oversight of how we operate, how we interact with ICANN, and thank you very much for your time.

[Applause]



DR. STEPHEN CROCKER: Thank you. Thank you, Byron. And let me just emphasize a couple of points that Byron made, and also in light of Ira's remarks.

The diversity that exists within the CC community I think is one of the most important elements, and sometimes lost from the perspective of sitting inside of our ICANN bubble, the genetic diversity that comes from that, the diversity of ideas, allows exploration of ideas, development of business models, development of practices and so forth, that operate in keeping with the spirit of innovation, and even, to some extent, a degree of individuality and rebelliousness that sometimes gets distilled out as we come into the caldron that we operate here.

So I've always treasured the existence of the CC community, even though there is an undertone of, "Well, why don't they all align carefully with what we're doing," and so forth. I have quite the opposite point of view.

Let me turn now to the generic names supporting organization. The GNSO's important mission is to fashion policies for the generic top-level domains. It strives to keep gTLDs operating in a fair and orderly fashion that's almost, in some sense, the counterpoint to what we've just heard. That's the broad brush stroke. For a more detailed update of their work, let me introduce Jonathan Robinson, chair of the GNSO Council, and in



his spare time also sitting astride the small task of figuring out the names community's posture on the transition.

[Applause]

JONATHAN ROBINSON: Thank you, Steve, thank you, Fadi, for the opportunity to come and talk with you, and thank you, Ira, for that -- for orienting us so well.

Personally, I'm looking forward to going back and going over the transcript from your speech. I think there were some very important messages and I've certainly taken some of those on board as you spoke and I look forward to going back and picking up on some of those.

Giving us that history on the sort of birth of ICANN and setting out, you know, sort of reminds me of the -- of course, the birth of ICANN, the DNSO, and some of the development. I was involved, in fact, back in those mid-'90s days, but primarily from a business perspective in the operation of domain name registration services and related activities, and much less so on the policy side.

So in recent years, I've become much more involved and it's a pleasure to talk with you about some of the things I've learned and hopefully orient the GNSO properly for you within the ICANN structures.



So I've set this up as a brief talk of seven questions -- sort of FAQs, if you like -- that talk about the critical functions that the GNSO performs and tells you a little bit more about what it is, what it does, and how it -- how it's organized and how it gets to achieve what it needs to.

GNSO is, of course, one of ICANN's key supporting organizations, alongside the ccNSO that you just heard from Byron about, as well as the advisory committees, and it's an organization that's enshrined and defined within the ICANN bylaws, whose primary function is policy development around generic top-level domains.

So thinking about the purpose and the fundamental objectives of what we try and achieve, and that is to develop substantive policies in and around generic names, and then to take those policies and recommend them to the ICANN board, and thereafter, assuming the board approves them, to oversee and engage with the implementation of those policies.

So it's a -- we have a responsibility for a full life cycle of developing those policies.

It's worth talking about how we are organized in order to better understand, and Byron talked a lot, and others have talked this morning about multistakeholderism and the multifaceted nature of this, and when you open up and look inside the GNSO, you see a microcosm of multistakeholder activity that, as Ira referred to, I



think, is sometimes messy, sometimes time-consuming, but always rewarding and productive in the end.

So this is a symbolic representation using the GNSO Council as a -- as an illustration of the structure of the GNSO, and first and foremost, one must recognize that within -- within the GNSO are two houses. The contracted parties house, comprised of those parties that are bound into, by virtue of their contracts, committed to the outcomes of the policy development process. The registries and registrars, as we know them.

And a second house which comprises diverse interests broadly splits into two stakeholder groups but much better understood by opening up the stakeholder groups and understanding the different constituencies that make that up. And together, all of this needs to come together and in some way find a way of organizing and developing the outputs that become ultimately binding on the work that we do.

So briefly how does it work? We work in a distributed and bottom-up manner. By "distributed," I mean much of the work takes place in the constituencies and stakeholder groups. And, in fact, that's fundamental to the way in which we work and, indeed, is often initiated within those different groups.

So we are open and, indeed, have liaisons from other SOs and ACs. And through that work, we manage and coordinate the development of the policy process.



How do we do that? And how is it actually achieved? Well, we run working groups which importantly are open. They are not just for GNSO participants. They are open to participation by all, and we work in a structured and systematic way to develop the policy according to what we call a policy development process manual, the PDP manual, which itself is an annex to the ICANN bylaws.

And through that, we produce what we call consensus policies. And critically, I'm almost certain, uniquely those policies so developed are binding on the contracted parties. So I think in looking at this -- and it is a key difference to both the ccNSO -- and I'm not sure there is an equivalent model elsewhere, where commercial entities subjugate themselves to the development of a policy process which they are then bound to. And I think you have to understand that in order to understand the sensitivity of being bound into that process and what the consequences of the policy development process is and why that needs to be handled with the care in which we do.

There are other activities undertaken in the GNSO that do not necessarily require a PDP. But in order for the process to be binding on the contracted parties, ultimately referred to the ICANN board, and supported by the ICANN board, it requires a policy development process, the structured and thorough development of those policies.



There is a couple more questions I'd like to deal with. And, first of all, it is what are we actually active and busy with now? And I thought it would be useful to give a couple of examples. Of course, there is the relatively routine domain name policy development which you would expect, an example of which is the rules for proxy and privacy services. Data, as you well know, domain data is always going to be sensitive. And dealing with that has been both an intractable and an interesting problem for many of us for many years. And, indeed, another example of work going on right now is the translation and transliteration of contact information for domain names.

But we don't sit still, and we are continually looking at how we might improve things. And the rules and processes are under continual internal review and something which we -- one of the areas in which we're, in fact, working is on -- is on rules and processes related to policy development and implementation.

One of the key learnings that came out of the new gTLD program was at times a disconnect between policy development and actual implementation of those policies. And we've got some good work from which the initial recommendations have recently come out that deal with specifically that.

For me, one of the most enriching recent developments has been the emergence and work that's -- emergence of work that's going on within cross-community working groups. We've got one group



working specifically on -- working up the detail and mechanics of how those cross-community working groups might actually be institutionalized. But that hasn't stopped us undertaking significant work in the meantime using the provisional rules of engagement, if you'd like, for the way in which those groups work. We are working on one on country names -- country and territory names as TLDs. Of course, in a very high-profile way, there's cross-community working groups working on both the transition which we've heard about this morning and the related accountability track.

And, indeed, another collaborative area which is critical to all of our future success is the work that's going on through the consultation group with the GAC to facilitate earlier engagement of the GAC with the policy development process. As many of you will know, policy development that goes through a significant amount of work only to come up against concerns and potential objections from the GAC is not a satisfactory process. And so we've done some very good work about early engagement of the GAC in the policy development process.

To finish off, I'll talk to you for just a minute or two about where this is all going. Of course, the GNSO, like many other elements -- you heard about the ATRT and the Affirmation of Commitments and the associated reviews. We are right now awaiting the outcome of a board-initiated review of the GNSO and look



forward to seeing the outcome of that review, taking on board those recommendations, and using that as part of our commitment to continuous improvement.

Notwithstanding that, we ourselves are working internally on process optimization, the enhanced collaboration I talked to you about, and we're ever vigilant to make sure that we keep ourselves honest and the community as a whole honest about the critical role of the GNSO and the value in respecting the institution and the bottom-up mechanics of how we work. And I think that for me is a really critical point, that we remain focused on recognizing that.

For many of us, there are frustrations and, believe me, I feel it at times with the pace and the compromises and the necessary messiness we have referred to a couple of times of policy development.

But in my opinion, it is potentially a lot more messy if we go around that process and don't respect and work within the processes. So just to wrap up then, there's some future areas of policy development that clearly the new gTLD program hasn't ended with the launch of the current round of new gTLDs. There will be work to be done on new gTLDs. There is reviews of the rights protection mechanisms. There's a significant potential piece of work on the next generation gTLD registration data services.



So there is a great deal going on, and it's rather difficult to capture that all in a nutshell. But I hope I've given you through those set of questions a brief tour of what we are, what we are doing, and where we think we are going.

So thank you very much again for the opportunity to give you that brief tour, and I look forward to working with you all over the next few days.

[Applause]

DR. STEPHEN CROCKER: Thank you, Jonathan. So that's what you are going to do the first half of the week, huh?

I would like to welcome Paul Wilson from the Number Resource Organization. The NRO is responsible for coordinating the five regional Internet registries which manage the distribution of Internet protocol, that is, I.P. numbers, and autonomous system numbers. These are used within the routing system.

Following Paul, we will hear from Alan Barrett from the Address Supporting Organization which develops recommendations on I.P. address policies for the board.

Paul?

[Applause]



PAUL WILSON:

This is so quite funny. I only just sat down on the stage when I got an instant message saying "fix your shirt collar," so I took a selfie to make sure it was okay. Thought about polling my network about the top button. But I thought I would make the unilateral decision about that one.

Thanks, Steve. Thanks, Pablo, for the instant message.

[Laughter]

Thanks, Steve, and thanks, ICANN, for the chance to be here. I think you heard I'm Paul. I'm the head of APNIC, the regional Internet registry for the Asia-Pacific, the place we are all sitting in right now. But I'm here for the Number Resource Organization, which is the collective of all the five regional Internet registries, RIRs as we call them: APNIC, RIPE NCC, ARIN, AfriNIC, and LACNIC.

So, again, it's not really usual for us to be up on stage here at the ICANN opening, but I hope it's useful for me to be here and talk about what goes on in the world out there of I.P. addressing.

I think as you know, that's the world of numbers rather than names. And a couple of times in the past, I've commented that ICANN meetings and ICANN itself seems to be about 99% names and 1% numbers, if that. And I mentioned that to a new ICANN staffer a while ago and they said, numbers?



Look, it is not a complaint. It is sort of natural. The RIRs have our own communities and our own processes which exist outside of ICANN. We hold a total of ten meetings every year, similar to this one, a bit smaller but just as important.

And that's where our communities' work gets done.

They've been going on for quite some time, actually since well before ICANN started. So our work is mostly about network operations, keeping the network infrastructure running, information sharing, working groups on technical topics, capacity-building and so forth. But it is also about policy development and each of our regions has its own policy development process, a PDP, for regional address policies which become binding on the RIRs.

In addition, together and through the Address Supporting Organization, we have got a global policy development process for policies which become binding on the IANA. And you'll hear about these from Alan shortly.

But that's how it works in terms of our communities and our meetings. Our meetings are all open, and we've love to see you coming along to see how the number communities work. In the next few months, in fact, you could take your pick from meetings we've got coming up in Fukuoka, San Francisco, Tunis, Amsterdam, and Lima and that's just the first half of the year.



Now, as for the NRO, we're the coordination mechanism for the RIRs to coordinate the work that we do together, the five RIRs, on issues like IPv4, address space exhaustion, and IPv6 deployment, about a whole range of security issues like the digital certification of address block holdings, and, of course, the registry databases because we use WHOIS and face a whole bunch of policy and implementation issues just like the names registries do.

While I'm here, I want to make one technical point, not exactly a new one, but I want to remind this gathering again about the exhaustion of IPv4 addresses, which has happened in three regions so far. And it is about to happen in ARIN, in North America, within the next couple of months, I think.

And what that means actually is that finally IPv6 is now actually happening after ten years of talking about it. And we're actually seeing success finally. So Google, for instance, measures the total -- a total of nearly 6% of all of their traffic which is being delivered through IPv6 today, and that's a huge amount of traffic. So that means actually that for the first time, I think, there's an early adopter, so to speak, advantage for people who deploy IPv6 now because whether you are an ISP or a content provider, the moment you enable IPv6, you will be offloading traffic from IPv4 to IPv6 where it flows very nicely on end-to-end connections and avoids things like network address translation and other things that get in the way of your IPv4 packets.



So, please, don't wait for the killer application for IPv6 because the killer application is the Internet itself.

So as you see, the numbering community does its work mostly elsewhere. You don't see much of us here, but we actually do interact with ICANN in a lot of areas. We're one of the three operational communities which rely on the IANA. And that brings me to the last topic for me, which is the IANA stewardship transition which has been probably highest on our agendas and many agendas recently.

It's actually also been on the RIR agenda for 15 years because this has been one of our expectations of the ICANN process, as we've heard today.

So we're kind of happy that it's finally underway. And our communities are working hard on it.

So last year we formed the CRISP team, the Consolidated RIR IANA Stewardship Proposal team, which met the deadline for a plan which was submitted to the ICG last month.

So that was a very successful process actually which had to aggregate five proposals from five discussions in five regions and each of those discussions going through the regional policy development process respectively. And it produced a single consensus proposal about the transition for the transition for the numbering community.



And so I think everyone knows we can all hear more about this later today at the ICG session which is coming up, and you'll get a full set of updates about all of these things.

So that's a brief update from the NRO and the RIRs. That's from the operational side of the numbers community. But I'm going to hand over to Alan now for an update about the policy side of the community. And I hope that after today, the next time you hear about numbers during the ICANN meeting, you'll be able to nod much more knowingly about that topic and what we do. Thanks very much.

[Applause]

ALAN BARRETT:

Okay. Good morning, everybody. I'm Alan Barrett, and I'm one of the vice chairs of the ASO Address Council. I'm here because the chair, Louie Lee, couldn't make it. The ASO AC coordinates global policies for number resources. By that I mean IPv4 addresses, IPv6 addresses, and autonomous system numbers. All these together are number resources.

This presentation is going to focus more on the regional policy development processes.

The number resource policy development work takes place at the RIR meetings, and the five RIRs between them have ten meetings



every year. And, also, there are mailing lists where there are discussions of policies.

In 2014, there were more than 50 policy proposals. And of those, 15 have been accepted and they've reached consensus within the community and either they've already been implemented or they're in the process of implementation.

So I'd like to introduce you to the main topics of recent discussions and also to let you know how you can participate.

Each of the five regional numbering communities has its own policy development process. And although they're separate and independent, they all have the common values of we're open, transparent, and low barrier to entry.

Decisions on policies are consensus-based, and the discussions aim to address all the issues that anybody raises.

Global policies are developed in very much the same way as regional policies. The difference is that for global policies, they must first be accepted by all five regions using the regional processes. And after that, they're checked by the ASO AC and forwarded to the ICANN board for ratification and implementation by the IANA function.

So because policies are made on a regional level, they can take into account regional differences. Different regions have different



levels of development and also different levels of IPv4 availability, which has become important recently.

The processes are open to anybody, and so any individual is free to contribute to any region's policy process. You don't have to reside or work within the region. You can contribute to the policy development process in some other region where you're not based. And that's not just talk. In reality, we do see a lot of participation in each region's process by people who reside in other regions.

IPv4 address depletion, you've probably all heard about that. The remaining IPv4 pools at the regional Internet registries are very nearly empty. And in several regions, because of this, special policies have kicked into effect which ensure that new entrance to the market or certain special use entities such as Internet exchanges can receive at least some IPv4 addresses, even though there's now a scarcity.

And we also see the emergence of IPv4 address markets where people are involved in buying and selling of I.P. addresses or shell companies which own those own those or have the use of those addresses and so policies have been adopted to ensure that the records remain accurate even as these transfers take place. And also, we find that some policies are no longer relevant, as IPv4 addresses run out, and so several regions have started the



process of cleaning up old policies which they think are no longer necessary.

So here's a brief overview of the sort of policy changes that reached consensus in the various regions last year.

As I said earlier, there were 50 proposals and 15 of them have been accepted.

Most of the accepted proposals are related to IPv4 address space depletion, so they're proposals to make transfers easier, proposals to reduce the amount of paperwork needed for IPv4 address allocations, and there have also been proposals to remove some of the now unnecessary policies.

Some of the policies that are not related to IPv4 depletion that were accepted last year includes a policy in the RIPE region dealing with legacy address space and policies in the AfriNIC region dealing with the WHOIS database.

It's also interesting to look at the proposals that are currently on the table. There's more work relating to transfers of address space, and not only IPv4 addresses but also transfers of v6 addresses and autonomous system numbers.

There's been concern in some communities about whether or not resources are used inside the region where they were allocated, and so there's been work in defining what it means to say a resource is used inside or outside a particular region.



Each of the RIRs has a Web page where you can read about the policy proposals that are under discussion, and there's a list up there. I'm certainly not going to read out all those URLs. You can go to the Web page, find a list of the proposals that are under discussion, and you can also see -- get pointers to the mailing lists where you can get involved. And the mailing lists are all archived, so you can read the discussions going back for quite a long time on all those policy proposals.

So please feel free to get involved within your own region or within another region to talk about policies that are relevant to your business.

Okay. I thank you. That concludes my report.

[Applause]

DR. STEPHEN CROCKER: Thank you, Alan. Thank you, Paul.

Now I'd like to welcome to the stage Jari Arkko from the Internet Engineering Task Force.

The IETF predates ICANN by a considerable amount and is, in fact, the evolution of processes that go back considerably further, all the way back to the origins of modern networking and -- that led into the Internet stage.



I'm proud to be a member of the IETF. I've been involved for a long time. This is where the real work of technical development, design of new protocols, and in a very real sense the negotiation and brokering of compromise in a very low-key, not entirely unpolitical but mostly unpolitical, environment takes place.

And this is not only where it has been in the past, but continues in the future.

Jari?

[Applause]

JARI ARKKO:

Thank you, Steve, and good morning to you all.

I'm very glad to be here in Singapore and at the ICANN meeting.

As Steve mentioned, my name is Jari Arkko. I chair the -- I'm chair of the Internet Engineering Task Force or IETF. I'm based near Helsinki, Finland, and just like everyone else in the IETF, I'm a volunteer. I have a day job. My day job is with Ericsson Research where I develop Internet technology.

And I wanted to begin by talking a little bit about the Internet ecosystem and basically trying to answer the question of why someone from the IETF is here on the podium today.



The ecosystem includes many, many different independent organizations, but we also have many common projects. Both the IETF and ICANN share a vision of global and growing Internet, each taking care of its own well-defined responsibilities towards that larger goal.

And the ecosystem also has people who participate in the work across organizations. Starting with Steve, of course, you were there when the IETF began, you were there when the first RFC was published.

And I wanted to point out a few areas where we work closely today.

The obvious first example is IANA. The IETF relies on IANA for holding a database of protocol parameters, such as port numbers. Every year, about 8,000 parameters get added or modified, and I believe our partnership with IANA and ICANN on this matter has been very fruitful for both sides or both organizations and I wanted to thank the IANA department, Elise Gerich and others in the department, for their hard work on that. That's going extremely well from our perspective, so thank you.

And I also wanted to highlight the many connections in our leadership.

For instance, Jonne Soininen from IETF is a liaison on the ICANN board. Terry Manderson, who is ICANN staff, has a long history of



being a volunteer at IETF in various roles, and next month he's going to start in our steering group as well.

And of course as has been discussed, we and several other organizations are working together to get -- on the IANA Transition Project.

You may have seen some of us IETFers in the ICG, for instance, and I just wanted to point out a few additional names that are here this week.

Andrew Sullivan, who is the chair of our IANA program at the IAB or Internet Architecture Board, is here, and Marc Blanchet, chair of our IANA plan working group, the group in charge of the community work on this transition.

So please talk to those people when you see them.

And I do want to thank everyone that I mentioned and many others who I did not have time to mention. The real cooperation happens at the grass-roots level, and this is when the relevant people join the working groups that they are interested in on either side.

We need that. Perhaps even more than we have today.

And I also want to speak just very briefly about what the IETF does and how it works.



The IETF, of course, is developing core technology for the Internet. Our mission is to make the Internet work better by producing relevant technical documents that influence the way people design, use, and manage the Internet. The standards used to define the DNS is just one example of many of that. We are an international community. We get usually like 50 to 70 different countries in our meetings.

We have network designers, operators, vendors, researchers, even some regulators and government people as well.

And the IETF is open to any interested individual. Although we do have meet -- three meetings per year, most of our work is conducted on line, so it's relatively easy to join the work. You don't have to travel, necessarily.

Our standards are openly developed and freely available, and we measure success to the extent to which they are deployed and used.

And I also wanted to talk just very briefly about a few items that -- that we are working on currently at the IETF, and before I'm going to go into that, I just wanted to raise this concept of permissionless innovation.

So when -- basically when anyone is developing Internet technology, what they usually try to achieve is this permissionless innovation model. That is, technology that allows others to create



new innovations on top of that technology without limits and without having to check back with the original developers or anyone else for extensions or permissions or anything like that.

And so far, it seems to be working very, very well for the Internet. I believe this is the key success factor for the Internet. Just think of the millions of applications the Web has enabled.

The IETF, of course, has -- or is working on many, many different topics. We have over 120 working groups currently. I'll just mention three items that I think are particularly exciting and active at the moment.

The Internet of things, like I mentioned earlier, enabling devices around us to speak IP and become more useful to us or to humanity to run societies better, to save energy, to provide new functions, and there's a lot of work there. We're working hard on that.

The other thing is, as you know, improving security and privacy on the Internet is -- is obviously -- has always been an issue, but, you know, perhaps particularly so in the last couple of years, and we at the IETF are doing everything we can technically to make sure that we have the tools for better privacy, for instance.

We're also working to develop further the Web protocols that we are responsible for, and there's of course other organizations also working on that such as W3C.



But one of the things that we are responsible for is HTTP, and this protocol that I'm sure is familiar to you all is something that we are about to release a new version of, Version 2, with (indiscernible) significant efficiency and other improvements.

We are also making it possible for anyone to make phone and video calls directly from Web browsers without plug-ins.

And I'm sure that the work of the IETF in these areas will enable many applications in the permissionless innovation style. For instance, making it possible for anyone with a Web server to be a voice provider and not just Skype and other companies like that, as is currently the case.

Finally, I wanted to go to the IANA transition just a little bit and talk about how we view this.

So the IETF is responsible -- we are the organization that sort of owns the protocol parameters, and I want to talk about how we work with IANA on that topic. And bear in mind that this is something that is the result of long-term evolution on this matter. The communities have grown to have the processes agreement and mechanisms in place to be able to deal with anything that comes up in the protocol parameters space in the right manner.

And the transition is very important, but it's also -- it's to be seen as one step in that overall evolution as well.



So the IETF has an agreement with ICANN for IANA services relating to protocol parameters. We are the party responsible for setting the policies in this area. These policies are documented in RFCs. And IANA's responsibility is to implement those policies and publish a database of the parameters.

And finally, oversight and resolution in dispute cases is provided by the Internet Architecture Board, or IAB.

And so this is the -- the overall situation, or it has been, so together with the other communities, we have been working to produce a transition proposal that largely speaks to the current model, and for the protocol parameters part, we just used the regular IETF process so we created a working group, wrote a proposal, made, you know, many, many different revisions of that proposal based on community feedback, brought the proposal forward through an open community process, and our proposal is ready from that perspective and we are now taking the next steps, readying ourselves for the transition.

And of course if issues arise, as they always can, we try to resolve them directly with other organizations. As an example, we are now working together with the RIRs, after we identified one area where there's some need for further alignment between the two different proposals.

And with that, I want to thank you and close. I know we all will continue the work together on these and other areas, starting



from the next session from 10:30 onwards, where the ICG will discuss with the community of the IETF and other proposals for the transition, so I hope to see you all or most of you, at least, in that session, so thank you.

[Applause]

DR. STEPHEN CROCKER: Thank you, everybody. Let me ask you to help clear the stage so that Fadi has the complete control of the environment up here.

As they're leaving, I'll offer one small fun fact about the IETF in the IANA process.

The IANA process serves the names community, the numbers community, the protocol community. Most of the world's attention is on the naming aspect. If one looks under the covers, the majority, far -- the vast majority of the actual work that the IANA function serves is actually for -- in service to the IETF. It's the least well understood but it is the dominant part of the activity. And it's just interesting the discrepancy between the public persona and what goes on underneath.

It's now time to hear from Fadi. He doesn't need an introduction. I just need to clear the stage, welcome him here.



There are jokes here that I'm supposed to tell you about the number of airline miles he has. At the very least, he's at least settled down for the time that he's here. Thank you.

MR. FADI CHEHADE: Thank you, Steve.

[Applause]

Okay. We're six minutes over time so I'm going to do something different. I will actually be very brief. I'm not going to eat more than five, six minutes of your break, if I could.

I had a set of slides prepared. I will run through them very quickly. But I want to deliver just a couple of key messages to all of us.

Look, we've been building on a journey for the last couple of years, and as your CEO, my job's to look a little bit forward and look even beyond the transition and think where we will be and whether the resources are there and the activities are there to ensure the security and stability of ICANN.

So before I go there, for the last two months I spent quite a bit of time on the phone with many of you. I made over 50 one-on-one calls with board members, with community leaders, and asked the simple question: What does "good" look like for you in 2015? What are the important things on your mind for 2015?



This was very helpful to give me context as we dove, all of us, into a very, very intense 2015.

What I heard most is that our core job should be to strengthen the confidence in our institution. And how do you do that?

Well, there are three things.

First, we have to strengthen the confidence in our operations. Then we have to make sure that our community, our multistakeholder model, is strong. And all of this must be rooted in the global public interest.

So let me talk a little bit about these three things.

Confidence in our operations starts by doing what we said we would do, and so we now hold quarterly calls -- the last one just occurred -- where we share with the full community a set of dashboards and metrics to explain and share with you and get your feedback on how we're doing.

In this last one that just occurred, we spoke about, for example, compliance. Here, we did an audit of 312 registrars and 14 TLDs. And by the way, 98% of them either passed or already remedied the obvious issues so that they are now in compliance.

Our registries and registrars are functioning very well.

We also reported on our financials, and again, this is the best picture a CEO can present: expenses a little lower than expected,



revenues a little higher than expected. So financially, we are strong.

But these calls, more importantly, are a testament to the operational excellence and accountability of ICANN.

We have a lot of work still to do, but these calls are important, and I hope you join us for the next one on April 23rd. These are open and hundreds of people attend them and have a chance also to interact with the staff.

Now, key to our operational confidence is a plan with some key metrics.

Now, you all just gave us a strategic plan for the next five years, and through the work of this community, you have now given us an operating plan to support the strategic plan.

That operating plan is going through its final consultation here at ICANN 52. Please give us your final feedback after the online feedback we got from you, because as soon as we finish this, next month we will take this operating plan, with its five objectives, 16 goals, 57 portfolios, and most importantly the 20 KPIs, the key performance indicators that you are giving us, these will be how we remain accountable to you in the next five years.

Please look at these and ensure they reflect what you want to measure in our performance.



This is how good organizations function and this is how ICANN will operate in order to be accountable and raise the confidence in what we deliver for you.

And, lastly, operational confidence needs to be reviewed by the community. You heard many of my colleagues before speak about the Affirmation of Commitment between ICANN and the community and that part of that reviews occur. The latest accountability and transparency review occurred and produced 12 recommendations. These recommendations generate, as you can see, more than 50 new activities at ICANN of which we completed 8. We are in the process on 18 and 25 are in the planning phase at the moment. We are committed, not just to check the boxes of what you told us to do, but we are committed in the spirit of accountability and transparency, without which we lose our legitimacy to serve you.

Now, the second part of building confidence has to do with the community work. And there I must tell you, the scorecard is pretty impressive. These are the numbers we presented during the second quarter stakeholder call. This is your work. This is a community, by all standards, that is quite busy right now. We have a lot of activity going on. We have implemented 36 advice statements and comment and inputs just in the last quarter. There's also activities that show how many new people are coming on board. We introduced this platform called



learn.icann.org, and just in the last quarter more than 1500 of you were on that platform taking classes and learning how ICANN operates and how you can be active inside ICANN.

This community, however -- and we're hearing this from many of your leaders -- is reaching a bit of burnout. And we in the staff are responsible to support you better so that we can manage the workload that you're all feeling. I must tell you, your leaders in a meeting on Friday and us have been working very closely on how we can alleviate the weight of the work that many of you are carrying. And I can't tell you how important this is on my agenda. And I want to assure you, and there's a session this afternoon that our community leaders will in fact be here for and lead, we'll show you the work we're doing to actually give you some relief with tools, with processes, and staff to make your jobs better and easier.

Look, this community is a very unique community. The volunteers that make up ICANN are essentially the spirit of ICANN. It's what makes this place a unique place. We heard from Ira that we are individualists or some of us are crazies, and I can count myself one of them for doing 197 trips last year. So this is who we are. But this is the beauty of ICANN. This is what makes us very special. And I know that our volunteers are at break point, but let me tell you, there is no better community -- and you saw some of it this morning -- to actually get this job done. And we will get this job



done together. So I thank each one of you for the incredible work you put. Stories, I had many to tell you today, I'll just mention one. In one recent meeting of the -- one of the accountability and transition teams, one of the key people there showed up, led the meeting, brilliantly, and got the community through some very tough discussions for more than two days and that person had just literally, 24 hours before, come from dealing with a very, very personal tragedy in his family. And he did not mention it to anyone. Just went through it, got his work done, and finished what we were supposed to do. These stories of volunteers, these, in my opinion, heroes that are keeping the Internet and ICANN work going, are what makes us who we are. And that's why I am very confident that we will finish the work that was handed to us. There is no question that everything we do has to be rooted at the end in the global public interest. You gave us that. If you remember in the new strategic plan, the fifth new strategic objective of ICANN is to root everything in the global public interest. And here, I want to talk about our Board of Directors. Because this rooting, this balancing of all the interests in this room, is ultimately the responsibility of our Board. Because interests differ. Some of us in this room want X and others want the opposite of X. How does consensus then lead to a balance that is rooted in the public interest is work that we all do but that our Board frankly gets a lot of credit for. Our Board showed graciousness in the last even 24 hours when asked by the



community that in an ultimate situation would the Board accept to be recalled or removed if they don't perform certain functions within a community framework, and the Board graciously said, we're ready for this because we're here to serve the global public interest. This is the sign of a -- an institution that is ready to meet the challenges ahead of us.

So as we move forward in the next few months, I think that we're ready to start seeing the fruit of our work, the hard work that many of you put. So let us have confidence in this institution, let us have confidence in each other, and we will get the work done. Have a wonderful week.

[Applause]

[END OF TRANSCRIPT]

