Internet Governance Forum
Hyderabad, India
Managing Critical Internet Resources
Open Dialogue
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>>CHRIS DISSPAIN: Ladies and gentlemen, we are actually waiting for the IGF secretary to arrive.
While we are waiting, if you'll indulge me, there's a gentleman over here who would like to make a brief announcement in respect to the ITU.
>>:Thank you.
Okay. Thank you. My name is Manuel Barros. I came from Portugal.
I would like to make an announcement.
I would like to mention another ITU activity under preparation that is also relevant in the context of enhanced cooperation, promoting the debate namely on public-policy Internet matters.
As you may be aware of, ITU at its plenipotentiary conference decided to convene the first World's Telecommunication Policy Forum, a forum aiming at discussing strategies and policies of interest in the changing telecommunications environment.
This first edition of the WTPF will take place in Lisbon, Portugal, from the 22nd to the 24th April next year and will specifically be focused on four key areas, including convergence and Internet-related public-policy matters, next-generation networks, emerging telecommunications policy and regulatory issues, and the international telecommunication regulations.
It is our expectation as an ITU member and, of course, as the host of the forum that the WTPF 2009 will provide a major contribution to the development of the telecommunications sector worldwide and also enhancing the cooperation within the Internet context.
Thank you.
>>CHRIS DISSPAIN: Do we have sound on this microphone, please?
Once we get started, we'll be unstoppable.
>>JEANETTE HOFMANN: Good afternoon, everybody.
We are impatient enough to start without the secretariat.
May I introduce -- the two of us are chairing -- moderating this session. To my left is Chris Disspain. He's the CEO of Australia's domain name administration.
My name's Jeanette Hofmann. I'm with the London School of Economics.
And now I would like to introduce the chair of this afternoon's open dialogue, Madhusudan Mysore, chief officer of customer services and operations at Tata communications.
Please, you have the floor.
[Applause]
>>MADHUSUDAN MYSORE: Thank you, Jeanette. Thank you.
Good afternoon. And it's a pleasure to be amidst the elite group, the participants and the panels.
The main focus of today's discussion will be on managing the Internet resources, which is a very, very wide subject which cuts across starting from the day we started our IGF forum, which it includes the gap and the present network, the present inventory, how does that itself transform to future technologies and how does it touch mobile revolution, how does it touch -- how do we migrate from existing IPv4 kind of technologies on to IPv6 and how does it -- what are the migration challenges and technology limitations, and how, as an Internet family, what all of us are here today can make the difference starting from service provider to policymaker to government, to vendors, to system integrators, to -- it cuts across all of them so that it does have an end game rather than one particular entity moving forward and the rest of them being back, so that we are not able to reach the end game of, on the whole, how do we address the lack of addresses or the I.P. addresses across, then how we can actually address that -- provide an identity to a user, an end user, maybe in terms of the home appliances or maybe in terms of an automobile industry, or it may be a difference or it may be any culture, any part of the world which, just, as each individual offers.
That's the -- we will have an open dialogue session.

If I see the complete chronology or complete list just of different sessions which we have had through the starting of this whole forum, it cuts across the complete infrastructure understanding, it cuts across the -- how, as a multifaceted partnership is needed across different vendor community, or the service provider community, and how some of this service providers or some of the regions or some of the countries have been able to inculcate this whole migration from IPv4 into IPv6, and they have been able to focus it much better with the help of the policymakers, with the help of the government, with the help of technologies, whereas the rest of them, we are still in -- still in a thinking state, or emerging state, not in a state where we can actually move into (inaudible).

These are the different aspects which we will be touching upon. I would request our panel members and Jeanette and Chris to take this forward.

Thank you.

Thanks a lot.

>>CHRIS DISSPAIN: Thank you very much, indeed.

I'm going to quickly run through the logistics of this afternoon.

We're going to start with the two main topics that flow down from this morning.

First of all, we're going to talk about IPv4/IPv6. And then we're going to move on and talk about enhanced cooperation.

Those are not -- we're not limited to those topics. We can talk about other things as well. And hopefully things will flow reasonably well. We're going to call on some people and ask them to comment.

If we know that you are a particular expert in a particular area or have a particular opinion, we may ask you for a comment. But anyone else who wants to comment or ask a question is, of course, welcome to do so. And that's what this is all about.

If you want to ask a question, please put your hand up, and somebody will come to you with a microphone.

Just a little word about the microphones. The best way to use the microphone is to hold it up to your mouth and speak into the very top of it. That's the best way to make sure that you're heard.

>>JEANETTE HOFMANN: We will start with -- yes?

>>CHRIS DISSPAIN: I just wanted to mention, Jeanette, two others things. Don't forget, there's interpretation in the six U.N. languages and Hindi, and the headsets are outside if you don't have them.

And just want to say hi to all people who are participating in this remotely through the hubs or the stream.

Is this microphone not working? It's not good, is it? Okay.

Can I have a handheld mike, please?

Thank you.

Is that any better?

[Laughter]

>>CHRIS DISSPAIN: Good.

So Jeanette is going to take the first session on IPv4/IPv6.

>>JEANETTE HOFMANN: Yes.

We start with a report from this morning's session. The moderator from this morning, Ms. Bernadette Lewis, will give a summary of the outcome from this morning's session.

>>BERNADETTE LEWIS: Good afternoon, ladies and gentlemen. I have the privilege of presenting the summary report from this morning's panel which dealt with the transition from IPv4 to IPv6.

The summary comprises the contributions both from the panelists, as well as some of the interventions that came from the floor.

So the report starts.

The policies that control the allocation and management of numbers within the Regional Internet Registries are developed through an open, bottom-up process that engages the entire Internet community. And this, in itself, is a self-regulating process. And given the present rate of depletion of IPv4 address space, it is projected that the exhaust will take place somewhere around 2011.

There's no need to impose a deadline to forestall the inevitable, because the market is dictating the IPv6 deployment. And IPv6 is really a continuation of what exists today in IPv4.

Most importantly, however, is that it will provide additional addresses.

It perhaps may impact on some of the current technical processes. But what is certain is that IPv4 and IPv6 will coexist well into the future.

Every I.P.-based product will be affected. IPv6 equipment is on the market, and vendors are supporting and migrating applications to IPv6.

But even though IPv6 is available for deployment, vendors are well-placed to support its -- to support operators in the migration of their networks. But the operators have been slow on the uptake of IPv6. And

this is perhaps because they face a number of challenges. For most, is that there's no obvious commercial driver for network operators to move to IPv6. There's no revenue associated with the migration. There's no initial customer demand. And they perceive that there's insufficient vendor support, or vendors are even charging for IPv6 support. And, of course, gaining operational experience is a learning curve and for configuring your networks and so on and the issues pertaining to tools for maintaining the protocols, both protocols, in the dual-protocol environment.

But operators do recognize that the time for migrating is now. And this is happening incrementally. And they have started with IPv6 in the core.

And there will be the need for addressing the hardware and software issues in their customer premise equipment and customer equipment.

And there are costs associated with the migration, costs relating to hardware and software, training, and actual man hours for doing the conversion.

The panel also noted that and it is very clear that there is a great need for private and the public sectors and civil society to be involved in the process. It is a shared responsibility and one that requires promotion and enabling of a smooth transition from IPv4 dominance to an environment where IPv6 becomes dominant.

There's a clear case for multistakeholder participation, and we had the example that Japan gave of the establishment of a national task force. So that was a useful model for going forward, task forces on a national basis to ensure the smooth transition and standardized mechanisms for the coexistence of IPv4 and IPv6.

And there's a tremendous need for public awareness and education, also training. IPv6 needs to be highlighted on national agendas of all countries. And it will be useful if the regions could harmonize their approaches or harmonized approaches across regions should be adopted.

It will be useful and helpful if as part of the education process, for case studies to be made available and published, for example, on the IGF Web site. And confidence-building measures to be highlighted to build the confidence of the citizens so that they are comfortable with the migration. And how we engage the citizens, how we engage stakeholders, is important. Perhaps citizens should be encouraged, for example, to view an I.P. address as part of -- an integral part of their identity.

In this emergent environment, the role of Regional Internet Registries is going to be changing. The scarcity of IPv4 is going to demand that the RIRs look and develop -- look at and develop policies for things like methodology for the transfer of I.P. address space, reclaiming and getting control of unused address space, security and management of this new IPv6 addresses, and handling the emergence of possibly secondary markets.

So these are some of the main significant points that were made by our panelists and also the contributors from the floor.

And with that, I end. Thank you very much.

>>JEANETTE HOFMANN: Thank you, Bernadette. You touched upon --

[Applause]

>>JEANETTE HOFMANN: Oh, you can clap. I don't mean to interrupt you.

[Applause]

>>JEANETTE HOFMANN: You touched upon quite a lot of issues that I would like us to look at closer in the coming hour. Perhaps we should start with looking a bit at this market that we all expect to drive the transition to IPv6.

Perhaps we should start with looking a bit at this market that we all expect to drive the transition to IPv6. One of the questions that we see asked again and again is who is actually -- who should be or who could be the driver for the adoption of IPv6.

Perhaps I could ask some experts from the business community to give their view on this question, who should or could drive the transition to IPv6.

Yes, please.

I don't have the microphone. Or perhaps just go to this one.

>>CHRIS DISSPAIN: Can we have a microphone here, please.

>>JEANETTE HOFMANN: And please introduce yourself.

>>DAVID APPASAMY: Good afternoon. David Appasamy from Sify Technologies.

We are an Internet and network services company in India. We are already IPv6 capable, and we became IPv6 capable about two, two and a half years ago.

We did that because we believed as a collective responsibility that we all move forward as companies that are involved in this space. And that we educate our customers as well, both enterprise and consumer, as to why it is necessary to move to IPv6.

I must say also that the government of India has been encouraging network services companies in India to

migrate.
In fact, we had a dialogue with them in 2006 at which point we migrated to IPv6.
So it's subject to you. It is both, at one end, governments of nations as well as a collective responsibility of those who are in the business of providing Internet services.
>>JEANETTE HOFMANN: So does that mean, from your point of view, it's the service providers who should be the lead?
>>DAVID APPASAMY: It's a dual responsibility. I think both governments who facilitate the expansion of networks and so on, who do the policy and regulation, both the governments and service providers should work towards this transfer towards IPv6.
>>CHRIS DISSPAIN: What would you see the role of governments being in that particular aspect?
>>DAVID APPASAMY: One is to have a dialogue with industry as to the importance of this going forward, which is what happened in India. Two is to educate, maybe create awareness of IPv6 and its importance with, for example, starting with government departments that provide e-governance and so on. They could take the lead and everybody else would follow.
If all services, all Web sites became IPv6 capable and announcements were made to this effect, there would be widespread awareness and people would say, okay, this is important. We have all got to facilitate.
>>JEANETTE HOFMANN: What is the role -- what is the role of the vendors with regard to the transition? Perhaps Jonne would pick that one up.
>>JONNE SOININEN: Yes, Jonne Soininen, Nokia Siemens Networks.
(Inaudible) also share a responsibility in the transition to IPv6. It's clear that the equipment has to be basics capable, and of course we have also noticed our responsibility while doing the technology and creating the technology.
And of course operators and somewhat, also, academics, and governments have been included in that.
So I think this is a shared responsibility where everybody now starts to understand, also, and take that responsibility there.
So I think the question is not that much more who owns the responsibility and if we move forward, but more kind of that we are moving forward already. That might not be that visible at the moment, but there is movement all the time.
>>JEANETTE HOFMANN: But shared responsibility sounds a bit vague to me, because this shared responsibility exists for about ten years now, and not much has happened when you look at the statistics.
So somebody here asked who is actually in charge. Is somebody in charge?
>>JONNE SOININEN: Who is in charge? That's a very good question.
I think that -- Well, shared responsibility, always you can say that when there is shared responsibility, there is no responsibility.
And can you actually hear that at all? Okay, good.
Okay. So the -- However, I think that there are many layers in this, and people are responsible for their own topic.
>>CHRIS DISSPAIN: Hold on one second.
Is there a translation problem? Or are you waving at me or....
>>JONNE SOININEN: They want to say hello.
>>CHRIS DISSPAIN: Sorry.
>>JONNE SOININEN: We're back.
The different players are responsible for their own areas, so the shared responsibility comes from that. Not that they are necessarily shared responsibilities for all the topics. The vendors are responsible for update their equipment. The operators are responsible to upgrade the networks. And the governments are responsible for enabling an environment where this can flourish.
>>JEANETTE HOFMANN: Thank you, Jonne.
Please introduce yourself.
>>WERNER STAUB: My name is Werner Staub. I am making this comment in a personal capacity.
I have been astonished for the last ten years about the fact that we have always kept turning a blind eye on the economic aspects of the IPv4 scarcity.
Even eight years ago, I saw companies being valued for the perceived -- is it okay?
>> Go ahead, it's fine.
>>JEANETTE HOFMANN: It does work.
>>WERNER STAUB: The companies are being valued for the perceived value of their IPv4 addresses.
Nowadays, we are seeing IPv4's addresses being sold in some kind of a black market.
We have the policy that IPv4 addresses should be free, and we wonder why those people or those organizations

have large chunks of addresses do not feel any motivation to give back what they don't need.
To say it a little bit provocatively, if it was just $1 for IPv4 addresses, and if they were -- of course, which is not possible, and they were all used, that would be an income of $4 billion a year.
That could be quite useful for bridging the digital gap.
Now, we sometimes insist that this should not be an economic process, and as we turn a blind eye to it, the only thing we are going to get is a black market or we are getting something much worse. We are getting the same thing which has led to the financial crisis; namely, that the valuation is based on the exchange of just a small margin of that that really has to happen when people need desperately some IPv4 space.
And then those who do have IPv4 space, they think that there is value and they want to treat it as an development, they want to sell it which doubles the unfairness which we already have.
So it is time now to think of pricing IPv4 and use that as a way to subsidize the passage to IPv6.
>>JEANETTE HOFMANN: You are about to scramble my order.
I wanted to talk about IPv6 first, and then about IPv4 and the potential market.
>>WERNER STAUB: That's precisely what I am saying.
If you want to pass to IPv6, charge for IPv4.
It's the same thing with pollution. If you want people to stop polluting, charge for pollution. That's the way you go.
>>JEANETTE HOFMANN: We will come back to that.
>> Okay.
I hope this is audible.
>>JEANETTE HOFMANN: Please introduce yourself.
>>SURESH RAMASUBRAMANIAN: Hello, my name is Suresh Ramasubramanian, and I have a few points here to raise here about v6.
Now, I know that v6 can probably give an individual IP address to every single atom on this planet, and we hear about an Internet of things, but we are not thinking of one factor, that we are probably going to connect a lot of things, a lot of devices like toasters, cars, exit route, to Internet that would not have been designed with security in mind at all and would not have been designed to be even a part of a network.
And as somebody who does security for a living, I'd probably start thinking about fully mobile high speed botnets when I hear about cars getting IP addresses, but that's just me.
And coming back to v4 and v6, I heard -- I have seen lots of vendor presentations that involve cool things, toasters and car garage door openers, everything getting v6.
But in real life, I have a /48 for my personal mail server, and as far as I have seen, the only e-mail that is coming into or going out of it with IPv6 is not from Hotmail, not from Gmail, not from anywhere else in the world. It's only coming from a few technical mailing lists run at universities or run on servers belonging to fellow geeks.
And if this is supposed to be the situation of IPv6 adoption in the day and age when everybody has this deadline hanging over their head like the sword of Damocles, we will have to act and we will have to drive adoption to v6 before a complete famine of v4 addresses starts driving a heedless and unplanned adoption.
And that is my sole concern here.
Thank you.
>>JEANETTE HOFMANN: Thank you very much.
>>AKINORI MAEMURA: My name is Akinori Maemura from JPNIC which is one of the national Internet registry for the IP address management.
But I would like to introduce -- oh, before that.
To answer your question, I don't think there is an overwhelming driver for the IPv6, but this is the word from Izumi Aizu.
I would like to introduce about our activity. As Mr. Satoru Yanagishima introduced in his speech in the morning session, the Japanese industry set up a task force on the IPv4 address exhaustion, and I'd like to introduce that shortly.
That's a task force by around 20 associations around the Internet industry and telecommunication industry.
Then the task force is aiming the swift -- encouraging any stakeholders to get prepared for the IPv4 address exhaustion because we are now running out of the IPv4 address in around 2011. Then we need -- the operators need to implement a network in 2010. Then procurement should be done in 2009.
Then planning should be done in this year.
This is a quite tight schedule, but the task force is now aiming to encouraging any stakeholders doing the quite comprehensive range of activity to setting up the test bed to test the IP basics environment, or training and making training material for the various operators or stakeholders. And asking the certificate program

provider to include IPv6 items to their certificate examination or trying very hard to raise awareness, including interviewing any stakeholders to identify the program in the deployment of IPv6.
And also, we don't think the IPv6 problem is the technical problem but business or social problem kind of thing. Then we focused on assisting -- making assistance of the IPv6 deployment planning in each individual operators to -- for the management of the operator to decide investment onto the IPv6.
That is all for me.
Thanks.
>>JEANETTE HOFMANN: Thank you very much.
The point about the test bed brings me to a question raised by (saying name), director, African e-Development Resource Center. He asks whether if there are any risks involved in the transition from IPv4-IPv6.
Perhaps Patrik could take that one up.
It was about risks in the transition.
>>CHRIS DISSPAIN: That will teach you, Patrik.
>>PATRIK FÄLTSTRÖM: Thank you, Chris. Patrik Fältström of Cisco.
>>JEANETTE HOFMANN: I didn't mean to put you on the spot.
>>PATRIK FÄLTSTRÖM: But you did.
[Laughter].
>>PATRIK FÄLTSTRÖM: So I think one thing that we should remember from this morning's session is that it's not so much a transition from IPv4 to IPv6. We are still very much into a situation where we are going to deploy IPv6. We are still going to use IPv4. The IPv4 we have is not going away, it's not going to stop working, nothing of that.
It is actually the fact that before the year 2000, every network in the world actually had more than one protocol on it. So it's only the last few years when we have been using only one, which is IPv4.
So now, when we are going to use two protocols again, IPv4 and IPv6, that's actually not something weird. We have been doing this for years.
So what people are to remember is that these are two different protocols. It's very easy to run them because IPv6 is more or less accepted the same as IPv4.
So -- And people have been deploying this for many, many years.
So that's where we are.
And there are many test beds.
>>CHRIS DISSPAIN: Can I ask you a question? Is that okay? Are you ready?
>>PATRIK FÄLTSTRÖM: Yes.
>>CHRIS DISSPAIN: Is there anything inherently less secure about having effectively IP address to IP address rather than going through what currently happens, going through NATs?
>>PATRIK FÄLTSTRÖM: That's a good question, Chris.
>>CHRIS DISSPAIN: Thank you, Patrik.
>>PATRIK FÄLTSTRÖM: And the answer is no.
>>CHRIS DISSPAIN: Good.
>>PATRIK FÄLTSTRÖM: The reason why people do believe that there is a connection between security and the ability to have end-to-end connectivity is that most of the firewalls that we have today, which are boxes where you implement a policy of what nodes can communicate with what nodes, is not only implementing that policy but they are also doing address translation, which is called NAT, at the same time.
Because of that, people believe that it is the NAT functionality which is what makes things secure, when in reality, it is the policy that you have implemented and the filtering which is that creates the security.
So this is one of the larger myths that exists, that you need to have address translation to get security, when in reality you need the policy and the ability to enforce the policy to get the security.
Now, what is important to remember, though, is that just because we have been running only one protocol, IPv4, for quite some time, all the firewalls we have today where we implement these policies are today configured only for policy for one protocol, IPv4.
So if you turn on IPv6, then you need to ensure that these policy enforcement boxes can handle both IPv6 and IPv4 for the policy enforcement, not only for the packet forwarding.
>>JEANETTE HOFMANN: Thank you, Patrik.
Patrick (saying name), Director, technology and licensing of Uganda Communications Commission asks what technical and economic challenges have so far been experienced in upgrading IPv4 equipment to IPv6?
Perhaps somebody from a company who has experience could answer that question.
Yes, please.
>> My name is (saying name), coming from a telecom company in Switzerland.

Just I can give how it can be done. Actually, the last question about the test bed, there are some open test beds in European Union under the European framework program that anybody from any part of the world can use it.
So the test bed is an open issue. At Patrik said, actually there is no big issue. Today we are running IPv4 and IPv6 together and they are both interoperable. They are both hardware and software proxy to work together.
So it is actually answered, actually, as Patrik said before and David Appasamy before. The methodology is there. It's only a matter of deployment.
The issue of the shared responsibility as well is regarding the content distribution.
The whole Internet, there are no two Internets, there is only one Internet at a given time. IPv6, IPv4 is only a protocol.
There's only one Internet as a content distribution network. It does not change from today, tomorrow and day after.
So people should realized, people normally don't talk about the content distribution systems or content providers, that are Web servers basically. So that's where the most emphasis should be given. And again, as Appasamy identified, government should take the first action to make their network IPv6 compatible, their Web servers providing the content of (inaudible) on IPv6.
Then everything will follow. (Inaudible). We don't need to know about IPv6 at all.
Thank you.
>>JEANETTE HOFMANN: Thank you. I find this quite surprising because from what I have heard, that all people who try to run IPv6 come across technical bits missing here and there. And the other argument we hear again is that there is no business case for adopting IPv6.
So either there is a challenge or there is no challenge.
So would anybody else like to comment on this in the room?
>>IZUMI AIZU: If I may or not.
>>JEANETTE HOFMANN: Yes, please.
>>CHRIS DISSPAIN: You will get your turn.
And you are great at handing over the microphone, Izumi.
>>KURTIS LINDQVIST: Thank you, sorry. Kurtis Lindqvist. I was on a panel this morning as well. As I was saying, I don't think there needs any technical pieces. I think we have all the technology we need. There might be, from the architecture point of view, I think there might be some vendors and some types of vendors who are still to implement v6 software. That's -- or v6 in their products. But there is nothing in the technology sense missing.
And I think most people who have gone and deployed this know it is actually straightforward. It will take some planning, but once you have done the planning, once you have done your homework, it's a very easy thing to do and most people have done it and a lot of people are doing it. It's not something unique or strange anymore. People are doing this all the time. It's out there.
>>JEANETTE HOFMANN: So would you then say that this argument there is no business case for adopting IPv6, that this is all nonsense?
>>KURTIS LINDQVIST: There is no business case for adopting IPv6 except that we are running out of IPv4 space. In two years, two or three years, as Adiel said this morning, there will be no IPv4 space available. That is the only business case there is.
>>JEANETTE HOFMANN: So the only block for adopting IPv6 is that there will still be IPv4 address available. And once they are gone, we will all happily switch to IPv6?
>>KURTIS LINDQVIST: I have a negative view of humans in general and that is we only act to direct threats. And so far the threat and the pain hasn't been bad enough. And maybe it will, as we get closer, it will be bad enough and we will start adopting it.
I think it's as simple as that.
>>JEANETTE HOFMANN: Anybody else wants to comment on the specific point?
>>IZUMI AIZU: Yes.
>>JEANETTE HOFMANN: Okay, Izumi. Go ahead.
>>IZUMI AIZU: To follow on the presentation of my government and task force, one of the areas they identified is the ISPs, as you naturally think. But not all the ISPs, at least in Japan, are ready to move to.
But some ISPs whose customers are more corporate, and they are very aware that they eventually need to provide the new servers, new services using the new addresses if the v4 address will exhaust.
They are very serious.
But to add that is posing some interesting regulatory and business challenge which haven't been really covered in this morning.

I don't think we should only consider the IPv6 or v4-v6 is within its own silo. In three years to five years. There are some other trends are there. One such example is the case of NGN or next generation network. For some of you, it may sound like too far. In Japan, the telco has already introduced the NGN as a commercial viable service.
And also, an alternative to the fiber to the home services, which we already have 12 million users.
The consequence is that because the telco decided to use IPv6 as a default NGN services, and there are ISPs who have been providing the services using v4 are considering the v6. Which v6 address do the users use, is posing very serious technical, commercial, and regulatory question.
It's so-called multiprefix thing, and there are technical solutions have three different ways. I don't go into the details.
But in an ideal situation for the users, we only use the IP addresses given from the telco. It's a flat network. But that eventually gives no space for ISP businesses at all to live.
So there's very intense negotiations underway right now in Japan how to really make the IPv6 over IPv6 solution where there is no international technical standard at all.
So these are kind of the new areas we may need to face.
Thank you.
>>JEANETTE HOFMANN: Thank you.
Milton, you wanted to comment on the point of challenges, technical, economic challenges?
>>MILTON MUELLER: So your original question was are there any risks involved in the transition. And we have heard from two technical experts who have said, in effect, the technology works. There are no risks. And I wonder, first of all, I would like for them to put that statement in stone and allow us to look at it ten years from now.
And secondly, I would like to point out that it's not simply a matter of the technology working the way it's expected to. As Kurt said, people are putting off the decision.
So let's talk about a specific risk.
Is there a risk -- and somehow, when people stampede to adopt it at the last minute, is there a possibility that something will go wrong?
>>CHRIS DISSPAIN: Patrik.
>>PATRIK FÄLTSTRÖM: And I just grabbed the microphone, and I must actually say and some people must be surprised that I agree with Milton.
[Laughter].
>>JEANETTE HOFMANN: Okay. It's on the transcript.
Everybody can read it.
>>PATRIK FÄLTSTRÖM: So let me explain what I mean with no risk.
As an engineer, as Milton is saying, I said there is no risk. Yes, I said so.
There is always a risk when you are deploying new things. Always risks.
So when I said no risk, I implied no additional risks from whatever risks you always have when you deploy something new.
So where I completely agree with Milton is that is, together with what Kurtis said, that the openly business case is that we will one day not be able to get more IPv4 addresses. So we need to start to deploy IPv6 and train early so we don't have to deploy it when being in panic. Because that is when we always have a problem when we start using something we have not trained.
>>CHRIS DISSPAIN: Bertrand.
>>BERTRAND DE LA CHAPELLE: Thank you.
Actually, it's a very nice segue to some of the comments that have been made before.
The comments I will make now are on behalf of the European Union, as France is the presidency of the European Union.
It's about the policy dimension. The technical aspects are one element.
The key element are -- the key elements, sorry, are the things that have been mentioned.
The first thing is to try to avoid to talk about transition anymore.
We need to repeat over and over again that the coexistence of the two protocols will last for a long time. And that what we need is to move towards compatibility between IPv6 and IPv4.
If the IGF could spread this message, just like the message is being spread in a certain way in the discussions within ICANN, that would make a great progress. Because as long as we keep talking about transition, and as long as there is no first mover advantage for any actor, and somebody also told me that there seems to be no last-mover disadvantage either, we're in the worst situation for having a coordinated move.
And the challenge and the benefit of an IGF is precisely to bring people into a common awareness and avoid

what economists call the prisoner's dilemma type of situation, whereby everybody is waiting or taking an individual decision that seems to be perfectly valid but, in the long term, puts everybody in a more difficult situation to make the transition.

Now, the second point -- and I'm finished with it -- is that on the scarcity of IPv4 addresses, the scarcity is bringing -- both are related. Because -- no, but it's related precisely for the reason that was said earlier.

If people have the feeling that there are no fair and equitable allocation mechanisms, both for the remaining addresses and for the already-allocated addresses, if a black market evolves, for instance, or things that are not transparent enough, then the environment will become even harder to handle.

So the encouragement is to discuss, as much as possible, what are the allocation policies for the remaining IPv4 addresses and the already allocated --

>>JEANETTE HOFMANN: We will come to that.

>>BERTRAND DE LA CHAPELLE: -- for developing countries, and that was the point, that they shouldn't be disadvantaged.

>>JEANETTE HOFMANN: Thank you, Bertrand.

Paul, you can jump the queue if you wanted to comment on this. I saw you queuing and then disappearing again.

>>CHRIS DISSPAIN: Adiel, do you want to talk about that, equitable distribution?

>>ADIEL AKPLOGAN: Well, yes.

Yeah, I think several people raised that issue. And I think on most of the RIR mailing list public policy discussion mailing list, the issue has been raised on how -- what to do with the remaining pool.

And following that, you will know that, recently, all the RIR has approved a global policy on how to distribute the remaining /8 equitably among the five RIRs.

But there is other question on that which are policy-related on how those remaining pool originally will be used in order to facilitate the transition, in order to allow newcomers to be able to have IPv4 address while implementing IPv6, how this has to be done. And as I explained this morning, those are policies which need to be defined and discussed by the community, by operators. And we need more participation from the community in the reflection on how to use those remaining pool, which will be allocated at the end.

>>CHRIS DISSPAIN: How long does that take, Adiel? How long does that take to come up with that policy?

>>ADIEL AKPLOGAN: Well, every region has a policy development process. And it's a process that can take 30 days to 60 days, depending on when the consensus is reached on the policy and what is the process after that.

>>JEANETTE HOFMANN: Thank you, Adiel.

There is one aspect regarding a market, the market for IPv6 that I would like to discuss. And that concerns the role of the end user. I learned only a few months ago that those who get a router from the Internet service provider today for broadband still get routers that understand IPv4 only. And that I found quite surprising, because, on the other hand, we hear all these companies saying, yes, shared responsibility, and we really need, and we have already started. But when it comes to end users, they still sell boxes from yesterday.

So I would like to know what role end users in this business actually play. Does it not matter whether they have IPv4-only routers or does it matter for the transition to IPv6.

Yes, Kurt. Do you want to reply to that as well?

>>:Yes, actually, I was going to talk about this.

You asked earlier that who is in charge. And I think the users are in charge of whether operators deploy V6 or not. If the users ask for it, more people are going to use it. And, ultimately, it's the users.

Going back to what I was here earlier to speak about, I don't think we need more test beds anymore. As someone who has actually deployed a V6 network and operates it, it's the test beds that actually keep V6 as an experimental technology for most operators. And the more test beds we have, the more problems we see. I mean, doing V6, there is quite a bit of nonoptimal routing which forces people like Google -- I mean, Google had an IPv6 address for Google.com. They removed it because people had problems accessing it.

And back to someone was mentioning free.ifr. Yeah, Kurtis was talking about that. And two weeks ago, in Paris, I had a free.ifr connection in the place where I was staying. V6 was off. So I asked the person managing the network, "So what's the deal with this?" He said, "Well, somebody complained, and the network didn't work. We turned it off."

So that needs no more test beds, but, actually, people need to go and do it. And, ultimately, the users are in charge.

Thank you.

>>KURTIS LINDQVIST: I'd like to follow up on two things. One, yes, no more test beds, because we need to get this in production. And the more production we get, the more we understand the problems and can

identify them.
So the question that Milton said about the business case, yes, we do -- as I said this morning, yes, we will need the DSL modems, it's not the legacy equipment being sold. It's just that there is no product available on the market, or very few, that supports V6. And rumor has it that that will happen very soon.
But I wanted to come back to the business case and to Milton's question about what's the driver for this.
I'd like to do a small straw poll. Because you're all here, I assume you're all interested in V6/V4 transition.
And people come in here saying what's the business case. How many of you here have as individuals, as your service provider, a very fine organization that has a transition plan? I do.
Now, the rest of you, you are the reason why there's no business case.
You go home, you go and ask your provider, as an end user, you go to your I.T. department, ask, "Where is my V6 address space? Why are we the last people to migrate? Do we really want to be in that seat?"
You are the problem for the business case.
>>CHRIS DISSPAIN: Always a good idea to blame the audience.
>>JEANETTE HOFMANN: Kurt, I understood this correctly, there is no IPv6 router for end users. On the one hand, all the equipment is there, but, unfortunately, that what really matters in the end -- for the end user is not ready yet.
Did I understand that correctly?
>>KURTIS LINDQVIST: The -- If you by "for the end user" mean the DSL gateway in your home, there are very few suppliers of that. But they are working very hard to get this deployed. And I don't actually know any firm dates. But I've heard that it will be very soon.
>>JEANETTE HOFMANN: What does that mean, "very soon"?
>>KURTIS LINDQVIST: I don't work for vendors. I don't want to commit to the dates.
>>JEANETTE HOFMANN: Does anybody know here in the room?
>>KURTIS LINDQVIST: Anyone wants to commit?
>>JEANETTE HOFMANN: It's not a small number of routers that is needed, after all.
>>:Two things --
>>JEANETTE HOFMANN: Could you introduce yourself.
>>BILL WOODCOCK: On the risk associated with switching to IPv6 as a provider, that risk, the business risk, is somewhere between 0 and 1. The risk of not switching to IPv6, business risk, is 1. You will go out of business when you can no longer provide service to your customers.
So that's really not an issue.
The issue is when.
The difference between IPv4 and IPv6 is exactly one. There is an additional 96 bits of address space. That's it. The problem solved by IPv6 is exactly one, depletion of the 32-bit IPv4 address space.
So if you're running out of V4, you have to switch to V6. If it's going to take you a year to convert, you need to start now. If you're more like a typical service provider network and it's going to take you four years to convert, you need to have started three years ago. It's pretty simple.
>>JEANETTE HOFMANN: Thank you.
>>JONNE SOININEN: Jonne Soininen. I would like to address a couple of points here.
First of all, about the business case, like it said very clearly, going out of V4 addresses is the business case.
For us as a vendor, we see there is a demand on IP version 6-enabled equipment. It might not be there yet in volumes, but the demand is growing all the time.
Another notion that seems to come out of this discussion that people think that there's no V6 whatsoever deployed at the moment. But like Kurt has pointed out, Freenet France has implemented V6, there are other providers here that have spoken that have implemented V6. And there are many more coming. And many have already plans.
But also, many don't. And those people have to now wake up, because to do a timely transition, you most probably, like Bill said, have to start two years ago.
So now it starts to be that it's not anymore orderly transition, but if you don't start very soon.
>>JEANETTE HOFMANN: Jonne, could I ask you one other question.
>>JONNE SOININEN: Maybe.
>>JEANETTE HOFMANN: Do you see as --
Do you see as a vendor, do you see regional differences in the sort of readiness for switching to deploying IPv6? Is there a difference, for example, between Asia and the U.S. and Europe and Latin America?
>>JONNE SOININEN: The -- Of course, in that way that -- Well, let's say something first.
There was a notion a couple of years ago, or maybe more than a couple of years ago, that Asia would move first. And there were some people in Asia, for instance, China, that -- and Japan, who started to implement

V6 early on and have gotten good experience on that.
Now let's say that most of the regions are more or less on the same level but not including necessarily the developing countries.
The emerging markets tend to look -- at least what I see, tend to be a little bit behind and not as interested at the moment, because they might be struggling with some other issues.
But, in general, the interest level seems to be the same, and people are moving more or less at the same time.
>>JEANETTE HOFMANN: Thank you.
>>ADIEL AKPLOGAN: Thank you. This is just a comment. Maybe all the three previous speakers have talked about it. And I want to come back to the risk aspect.
I think if there is a risk about the transition itself, it's for not planning and rushing into the transition. Because you said a few minutes ago about people having problem here and there, piece missing, et cetera.
Generally, that is due to bad planning, bad assessment of what the network is. So there is a different step in the transition, in the migration, to know exactly where are, you know, the elements that need attention, that need to be -- all those things need to be assessed first before starting. So it's time. And as Bill said, two, three, four years, depending on the size of your network.
So the planning aspect here is very critical. And the support from the government or the lead from the government to allow, push local operators to start planning earlier is very important.
I will also point out that I was referring to policy developed in various RIR regions. Some of the issues are being discussed, for instance, during the transition period, making sure that IPv4 addresses are ready to allow the transition mechanism to allow newcomers to have at least IPv4 address, so that during the cohabitation period, they are able to be connected to the Internet. Those are critical policies. And those are where we need to be more proactive, government, the end user, operators, to define and start looking at how things will be during that period.
>>JEANETTE HOFMANN: Okay. I realize we could easily talk another hour about risks and challenges. But we need to move on.
So I would now like to address the problem of the scarcity of IPv4 addresses.
I was asked earlier to address one question, and that is whether a market for IPv4 addresses could lead to a delay in the deployment of IPv6, because many people are concerned about that, especially if a market would sort of bring up lots of the legacy space that is not used right now.
For those who don't know, about a third of the IPv4 address space is so-called legacy space, and only a small portion of that address space is actually used.
So would anybody like to comment on that question?
>>CHRIS DISSPAIN: Briefly, please.
>>:Very briefly, indeed.
>>JEANETTE HOFMANN: Yeah, please answer briefly.
>>:There are two or three things that are going to take place in the interim before the scarcity finally sets in. And the first thing is that when any resource becomes -- when any fungible but finite and scarce resource gets -- starts to get depleted, one, the use of that resource will become much more efficient. People will start looking in their currently allocated IPs for whether they have some I.P. allocations that have slipped through the cracks, it belonged to a customer but it's been disconnected and never reclaimed.
And with a lot of ISPs around the world, I know for a fact that they maintain their I.P. allocation in Excel sheets or even on slips of paper in files. And things can very easily slip through the cracks.
The other thing that will happen is people try to acquire I.P. addresses using fraudulent means or on the black market.
And the third thing that will happen is that there will be increased efforts to make people who own legacy address space to give it up or, as some people might prefer, disgorge it. But this may prolong the option for only a few years. I have seen estimates that say 15 years for V4 to run out completely. It might be 17, 18 at the most.
>>JEANETTE HOFMANN: Thank you, Milton.
>>MILTON MUELLER: The question is, will a transfer market for IPv4 addresses slow down the migration to IPv6.
The answer to that is not a simple yes or no. The answer depends on how quickly you think people can transition to IPv6.
The transfer market could, indeed, prolong the transition. But it may be true that we need to prolong the transition, and that if we don't, we will get into serious trouble.
Let me give you a simple example. And this is not the first mass standards migration we've gone through, right. So one of the big ones we've gone through recently is digital broadcasting. Now, if you want to force

everybody in your country to get a digital television, you could shut off analog TV two years ago and say, "Sorry, you can't get broadcasting." Any politician who did that would simply be in big trouble. They would not be re-elected. They would be blamed for a massive screwup.
And so we have set in motion extended plans for the digital TV transition.
I would view an IPv4 transfer market as a necessary risk reduction mechanism that if the transition takes longer than we expect and doesn't go as smoothly as we expect, we will be using the remaining resources more efficiently.
>>CHRIS DISSPAIN: Last two.
>>AKINORI MAEMURA: Akinori Maemura from JPNIC.
Answering your question, the transition for the IPv4 space doesn't help so much, because right now, the IPv4 address consumption rate is at ten -- more than ten /8s in a year. Even if we have transfer -- a transfer mechanism, the supply of the secondhand IPv4 address space doesn't satisfy the demand of the IPv4 address space.
>>CHRIS DISSPAIN: Thank you. Last comment.
>>:I would like to give an answer to that one.
The transition or the adoption of IPv6 is to blame the developing and the emerging countries, because even the depletion of the IPv4 or the nonusage of IPv4 addresses are always in U.S. or in Europe. Where we don't have I.P. addresses are the emerging world or the developing world and they're also not deploying Internet so far so well. So why don't they start with IPv6 directly without looking for a IPv4 address. It's much more (inaudible) the leaders of the world, to take these developing countries, that they have more address space than others have. So that would be another way of looking at it.
Thank you.
>>CHRIS DISSPAIN: Thank you.
>>JONNE SOININEN: Okay. Now it works.
So Jonne Soininen.
I would address one point that you, Jeanette, said. And that was, you said one-third of the address -- IPv4 address space is legacy address space and it's not used.
I don't now remember from the top of my head which part is actually so-called legacy address space that was given to organizations and governments before the creation of IANA and the RIRs as they are now. But the thing is, much of that address space is not routed on the Internet, but we don't really know which part of that is not used.
>>JEANETTE HOFMANN: True.
>>JONNE SOININEN: So, actually, more -- much more of it is most probably used than is seen in the Internet routing table, because they are private networks. I know, for instance, GMA has the GRX network that uses private -- that uses public address space in a private network. And I've heard of military networks doing that as well.
>>JEANETTE HOFMANN: So you are saying there might be much less that could be available for trade, and, therefore, it would perhaps not be a problem with regard to deployment of the IPv6?
>>JONNE SOININEN: Well, the -- I think there's much less that is available that we think, just for calculating, what we see in the global routing table. But how much, I don't know. And maybe that can be traded. That's not really my cup of tea.
But one thing to say, still, is that there's been a discussion here that who has address space and who doesn't. The address space is not finished yet. So if you need I.P. version 4 addresses, you can still get them until they finish.
>>JEANETTE HOFMANN: Okay. I close the queue behind Milton.
Please, very short comments, and then Bernadette will wrap up.
>>:I wanted to bring one other fact into this that's probably worth considering.
I work a lot with the I.T. managers of large government networks. And they might run a network of, say, 15,000, 20,000 users or something like that.
Now, the first thing that they do when anybody asks them to upgrade anything, you know, it's almost a matter of principle to them, is, don't be at the bleeding edge. In other words, the big networks do not want to be first, because there is too much risk in it. So the bleeding edge is something they avoid. So they're not doing it.
Secondly, where is my cost justification? Because I have great complexity. My 20,000 networks -- and I have a number of applications, I may even have an I.P. on an old mainframe computer. I have all of these things that are very, very complex to change.
Now, in my assumption, you know, if I go and say, oh, we've got to do this upgrade to the management of the

organization. They say, why? Because we're running out of numbers, it's just not true, because they are not running out of numbers. They are not going to run out of numbers, because they sit behind firewalls, and they use things called NATs. So, in other words, these internal networks aren't going to run out of numbers, have no justification to do so. So there's no movement there.

So I think one of the great difficulties you face is that there is no business case for the large users to change their internal networks.

Thank you.

>>JEANETTE HOFMANN: Okay. Milton, please, briefly.

>>MILTON MUELLER: Just responding to Jonne.

People have played this game a lot where we try to speculate how much address space is out there and how that affects the case for a transfer market.

And the point is, we don't know. I mean, there's good evidence to believe that there's massively inefficient utilization of large spaces of V4. But it could be wrong.

I don't see how that affects the justification for having a transfer market. Because if you don't and you run into shortages, again, and a V6 transition doesn't go as smoothly as we think it is, you're going to be in trouble.

Every time you have a scarce resources that is not priced, you run into shortages. Whether it's oil price controls in the '70s, rent controls in major cities, you will get shortages when you don't price resources that are scarce.

So I just have trouble understanding the resistance to the transfer market idea. And I think it's simply an insurance mechanism that allows addresses to be used more efficiently in the short term as we make the transition.

Thanks.

>>JEANETTE HOFMANN: Okay. Thank you.

I'm afraid Chris gets, really, restless here. So I need to hand over the microphone to Bernadette.

>>BERNADETTE LEWIS: Thank you very much.

I think the discussion this afternoon really drilled down into a lot of the discussion that we had this morning. And I'd like to start with some of the points that I think have been emphasized over the course of this morning and this afternoon.

The first is that this transition or migration period is one which requires a shared responsibility if we're going to have an orderly migration to the time when IPv6 is the dominant protocol in the environment. And it requires the governments, the operators, the vendors, the consumers, all of them, taking charge of their respective roles, and a certain coordinated approach to making sure that it happens, the migration is orderly.

The second thing that stuck out in my mind was the whole discussion about the risks. And it came out very clearly that the technology works, so that the risks that we're talking about are really the risks associated with not moving forward with IPv6 deployment.

And in order to minimize this risk, I think it's very important that your planning processes are very careful and take all of the issues into consideration. So planning is critical to the process for minimizing the risk.

The third area that I also wanted to just focus on briefly was the need for education and public awareness. This is fundamental to the whole process moving forward. And I think it also is a shared responsibility, that the government has a role to play in advising and informing and getting its citizens on board.

I think the government must be one of the early adopters of IPv6 and using it in their own networks. And I think that in itself is a demonstration of its commitment, and it is an encouragement also for the business community and the private sector to move forward as well. It shows that the government is serious about this issue.

And, finally, the whole issue of how we are going to approach the scarcity of the IPv4 addresses, there's -- there are a whole lot of addresses not used and not accounted for. But even if we dealt with those, the bottom line is that we have to begin this migration process. And I think Bill Woodcock was pointing out, we should have started two years ago. And that isn't good enough. It means that we are playing catch-up now. And everyone has to get on board now. There is no time for further delay.

And with that, I conclude.

Thank you.

>>CHRIS DISSPAIN: Thank you very much.

We're going to move on now to a discussion on the second session that took place this morning, and we're going to start by asking the moderator from that session, Emily Taylor, to give us a brief synthesis of that session.

Emily. Are you going to up on the plinth?

>>EMILY TAYLOR: Thank you very much, Chris.
I'm giving my summary of this morning's discussion on managing critical Internet resources, arrangements at a global, regional, and national level.
The other panel members are here, or at least some of them are. Perhaps you could stand up if you're here, any of you. Thank you. Great.
And so no doubt they will contribute to this afternoon's discussions as well.
We were fortunate in having the session chaired by Mr. Ramlinga Raju from the hugely successful Satyam Computer Services, which is like many businesses, or any business, indeed, today, dependent on the proper functioning of critical Internet resources. And he used Bernadette's phrase just now, the technology works.
So the expression "enhanced cooperation" was coined by David Hendon, the E.U.'s lead negotiator in the World Summit on the Information Society, back in Tunis in 2005.
Like any good compromise, it got agreement on the night, because each actor could see a piece of what they wanted in the text. This has been termed "creative ambiguity." And that ambiguity was echoed in Haiyan Qian of UNDESA's point, that it was not at all clear what enhanced cooperation means.
It is also illustrated in the way that our panel members created excerpts from the text of paragraph 69 to 71 of the Tunis Agenda to support their views.
Everton Lucero, from the government of Brazil, emphasized the phrase "governments, on an equal footing," from paragraph 69. And this supports the view that enhanced cooperation means a process involving governments.
Dick Beaird from the U.S. department of state quoted paragraph 71, which states stakeholders in their respective roles, to support his point that Tunis created no new areas of competence for existing organizations.
Parminder Singh, from civil society's I.T. for Change, differentiated between technical policy and public policy, emphasizing that only public-policy issues, a quotation from the relevant section, are truly part of enhanced cooperation.
Byron Holland, and Raul Echeberria, respectively from the nonprofit world of Internet naming and numbering, indicated their view that enhanced cooperation is not owned by governments or particular organizations, but involves all stakeholders as quickly as possible, a quotation from paragraph 71.
This shows, I think, that it's easier to create ambiguity than it is to live with it.
A couple of people have pointed out that this morning's statements at times felt like they were taking place in parallel universes. And this reminds me of the pink Floyd song, "comfortably numb" you know, your lips move, but I can't hear what you're saying.
[Applause]
>>EMILY TAYLOR: What is clear is that there is no one clear shared vision of what enhanced cooperation means and what in organizations enhanced cooperation needs to take place.
Everton felt that the ITU was relevant and ICANN especially relevant and expressed concerns about ICANN in this regard.
Dick highlighted positive examples in the OECD and the ITU.
Parminder expressed the view that the ITU, OECD, and ICANN were not relevant.
Raul said that enhanced cooperation should be understood as a living concept, a lovely phrase, and said that he did not feel that all stakeholders within the ITU could, at the moment, participate on an equal footing.
But focusing on the positives, first of all, every speaker highlighted different reasons to be cheerful, even though they were different.
For example, action to combat child abuse images in Brazil, the extended involvement in the recent OECD ministerial, improvements in the way that I.P. address registries interact with relevant stakeholders.
Secondly, I think we're getting to an understanding of the different positions and how they are all supported, to some extent, by the Tunis text.
Most importantly, I think some of the heat has gone out of the discussions. And I might be proved wrong in this this afternoon. But that is real progress.
I'd like to return to Raul's concept of enhanced cooperation as a living concept. It fits the fast-changing environment in which we operate, and, incidentally, to show it's my turn to quote from the Tunis Agenda, it is supported in the text, which requires us to be, quotes, responsive to innovation.
So perhaps there is a role for the IGF in this context. As a nonthreatening environment for discussion, where we don't have to make decisions, we can talk, share practical experiences from different perspectives, and as we heard this morning, move to the point, perhaps, where we can listening to each other, moving from a disconnected series of statements to a shared conversation, no longer comfortably numb, perhaps, but invigorated by a true exchange of views.

>>CHRIS DISSPAIN: Thank you, Emily.
[Applause]
>>CHRIS DISSPAIN: Let's see if we can keep the song analogy running through the rest of the afternoon. There are a number of people who wanted to speak this morning and didn't get to speak. I'm going to call on some of those in a minute.
While I do that, I'd like the business people in this audience to think about this, and the users, the non-business users in the audience to think about this. I've got my domain name. It works. What -- why do I care about enhanced cooperation? What does it mean for me? Why does it matter?
And it would be great if some of you who have some ideas about that could actually put your hands up at some point and speak.
Can I just say, you don't have to queue up at the mike. You're welcome to queue up at the microphone, very welcome. But you don't have to. If you put your hand up, we'll get a microphone to you.
Secondly, if you're not happy speaking, there are people with bits of paper and you can write stuff down.
Now, I know that Mr. Tang from the government of China, wanted to speak. So why don't you go first.
>>ZICAI TANG: Okay.
-- and information ministry of China, since this is the first time for me to speak at the meaning. Let me express my condolences to the victims of the bombing event in Bombay which happened last week.
My heart goes to their families.
Today, we come here to Hyderabad. It shows that united, we have the determination to safeguard peace and security of the world, and, in particular, peace and security of cyberspace.
Since this is the first time for me to speak, then let me raise a suggestion concerning the organization of the forum. As a member of MAG, and according to our consensus reached in September, the meeting in the afternoon should be an open dialogue which should not just focus on the two major themes that were discussed in the morning. Rather, it should focus on all the themes that take place during the day. It should be a continuation of the panel discussion in the morning. This might be a point of attention in our discussion in the future.
Concerning the managing critical Internet resources, concerning the mechanism on arrangement, indeed, we had a lively discussion, and, in particular, concerning managing critical Internet resources, we had a lot of (inaudible). And in our MAG Advisory Group, indeed, we have different views as to whether this issue can be put on the agenda of the meeting. People had different views.
But at least we can see that a successful lively discussion of the issues shows that it is necessary to put this on the agenda. And also it shows that, indeed, IGF as an open and free forum provides a good opportunity for all of us to express our views. And this is the attraction of IGF.
Personally, I have attended the summit, the Geneva phase, the Tunis phase, and a discussion concerning this forum. I was a major participant of the meeting. And I know what was going on. And as a member of the Advisory Group, I would like to make some comments concerning the scene today.
First of all, I believe that -- I am asking, what are we trying to discuss here? What kind of problem are we trying to resolve? We have to be clear on this point. Otherwise, we're just talking here all day long, without knowing what we're doing here. This is a waste of our time.
We should, rather, identify the focus of the meeting, identify the substantive issue we want to discuss here. And on this issue, people can express different views of discussions. It's good if we can reach a consensus. And if not, then five years later, in 2010, we should submit a report to GA which indicates that we failed to reach consensus on the issue, and we should have further discussion on the issue, maybe through different mechanisms and different forums, so that in the final analysis, we can resolve the problem. This is the whole point of our discussion in IGF.
So we have to identify, in the first place, why we need to have a discussion here and what we're discussing here. Ever since 2003, I have been involved in work in this area. So I do have something to say.
In the beginning of 2003, when the Geneva phase summit conference was convened, the Chinese government arranged the question, that is, under the context, in the context concerning the management of critical Internet resources and its relevant organizations, which apart from day-to-day operation was also in charge of one thing, that was updating data, or, rather, authoritative root server, it was in charge of management of this issue. In fact, we -- ICANN was not in charge of everything. And the government would take over the part which it was not in charge of.
And it concerns the stability and security of global Internet.
The management of this issue, in fact, people from different countries have different views. Should it be left to one government or, rather, should it be managed by many countries? Or it should be done by intergovernmental organizations.

Therefore, the 2003 summit discussed this issue, and consensus was not reached. And then a working group was established to discuss this issue. And a report was produced. Many experts here were members of this Advisory Group.

The report made a clear point on this issue. By 2005, in the Tunisia phase, we also had a discussion on the issue, without any success, without any conclusion. And then the secretary-general of the U.N. authorized to establish a working group on this issue to discuss this issue.

This is very clear. The focal point for IGF is to discuss if we need one government to manage these critical Internet resources or to do something else. This is a very important issue.

Of course, the government should do it. The question is, how can these kind of resources be managed.

This morning when we mentioned enhanced cooperation, we already had some discussion on this issue, which was very lively and active. This kind of opportunity should continue to be available. Let's see if we can reach consensus. If not, then, in the final analysis, the issue will be raised to the General Assembly to consider and make a decision on.

Another point, in IGF, we must make full use of this forum to remove misunderstandings.

This morning, some panelists, in their statements, also showed this kind of misunderstanding. This intergovernmental mechanism might affect the innovation and development of Internet, the business circles, commercial circle tend to have this kind of misunderstanding concerning this issue.

For the present, it's not that we don't have a government that manages the Internet, but, rather, it's one government from a country that manages critical Internet issues.

What we're advocating is that this mechanism should be changed. We should have many governments, or multistakeholder to resolve the problem in order to -- we should replace the existing mechanism. This is what the business, what the academic circles should work on.

Here, in this IGF forum, we should have good communication, good exchange, so as to remove this kind of misunderstanding. And we should try to reach a consensus.

And now my final point.

In IGF, all governments, private organizations, civil organizations, academic institutions, they have come together to this forum to have good exchange, to have good communication for the purpose of strengthening security and safety of the Internet.

Thank you.

[Applause]

>>CHRIS DISSPAIN: Thank you very much.

Gentleman there, and then Jean-Jacques, you were in the queue earlier on. Would you like also to speak? Alun.

>>ALUN MICHAEL: Thank you very much, Alun Michael, member of parliament, U.K.

I think the remarks that have just been made should be taken very seriously by everybody as giving exactly the reason why we need to make the IGF process work.

One example, I think it's disappointing there aren't more members of parliament at this IGF.

There are actually a larger number than there were at Rio last year, but we have still got a long way to go before we have a proper engagement of parliamentarians. And I think that's very important for the future.

My concern, listening to the way that this debate is going, is that last year, I challenged all participants in the IGF to live up to their words, to walk the talk.

As for a specific space on the IGF Web site, for commitments, and I have made a number of commitments on behalf of team U.K., I didn't speak as a Minister or for government but on behalf of the U.K. team. But Ministers have backed those commitments and we have reported back as promised during course of panels during this week. We have established the United Kingdom IGF so that we debate issues at a national level.

And one of the big developments that I am really pleased about, for instance, was the seminar this morning when we talked about the patterns at different national levels where people are doing work to bring work together to this event.

In other words, industry, parliamentarians, governments, and civil society working at a national level in order that we come together with issues to be discussed at the international level.

Similarly, we promised to work on things like crime reduction and best practice a. And we brought things back from that.

My point in saying this is the challenge is not people what say in a discussion like this, but what we do in between to make sure that there is a cooperative approach, that we have business, we have governments, we have civil society, engaged in the future of something that is absolutely crucial and important to all of us.

But I also said, last year, can we increase the engagement of mainstream industry?

I think that's important. We need people at a chief executive level in industries across the world not

necessarily to be here but to realize that it is important to support the process in their own countries and to support the process here.
But finally, what about governmental engagements?
Governments signed up to the IGF process during the course of the world summit at Tunis. It's not enough for governments to sign up for it and then stand back and say we wait for it to fail. Governments need to support the process. That means they have to be involved with the other partners at their own national level. I'm pleased to say ours is, and some others are as well. But I think we have to challenge all governments, not simply to stand back and wait for the IGF process to fail, but say that actually working together is not just more complicated and involves more talking. It's actually the best way to do things, and it's the only way to do things in the joined-up nature of the Internet work.
Cooperation, working together is the only way to design a new form of government. Falling back on the old forms of governments simply will not work.
>>CHRIS DISSPAIN: Thank you, Alun.
[Applause]
Jean-Jacques, would you -- Can I have a microphone here, please.
>>JEAN-JACQUES SUBRENAT: .
My name is Jean-Jacques Subrenat.
I think that I represent civil society because the work I am carrying out now, I'm not being paid for it and I do it for the directorate of ICANN, but also I am President of the Scientific Council also the Executive Council of the Luxembourg Institute which works in the area of international affairs.
I have two main points to make.
The first point supports what has been said by parliamentary member from the U.K.
What he said, in fact, is that what we have been hearing in these days in the IGF in Hyderabad is a process somehow more by exclusion and not by inclusion.
It's not an inclusive process. And I do realize that the multi-actor stakeholder model functions because there are well identified entities.
However, I do not believe that we should push this kind of thinking very far.
Of course, there are registrars, there are users, there are governments. And everyone should contribute to this process.
But what I find, if I take a sociological approach to our debate and I would say that some feel themselves more as owners of the process than others, because they participated in meetings, they participated in discussions.
And I would like to draw an analogy here and say that there's nothing more disturbing for a representative of a country, of the European Union to hear that others -- for example, French people, French people here have been saying that we, the founding members. But I have to say no. We are all founding members here.
There's no second class representative here.
And I believe that in all of these discussions about the Internet, whether here or in international meetings of ICANN, should have this sentiment of being included in the process and not being excluded from it.
And I am saying this, and perhaps I will be moving away from the main subject matter, but let us look at what is happening really today.
In fact, every one of us represents many things. And because globalization is moving ahead very fast, we are also at the same time parents concerned with child pornography and the Internet. We are also parents who would like to educate our children very well. This is why we are interested in the educational side of the Internet.
We are both, women and men are concerned by issues of safety and security in society. We are against violence and crime on the Internet. And we are also all citizens here, and we do realize how valuable the contributions of governments are when we talk about the formulation of public policy.
And this leads me to tell you something different than what was said by Parminder Singh.
He said there are two areas, public policy and technical policies. Well, I think one of the more important realities of today is that we can no longer create such clear distinctions and create barriers.
There is a part of these technical policies that, indeed, has implications for public policies, and vice versa.
So to conclude on this very first point, I think that instead of using a red pencil and clearly mark the borders or border lines between organizations, between communities, between developed or developing countries, I think that we should try to find joint solutions. And this is the most important contribution that is being expected from this forum on issues related to the Internet.
I have been a bit lengthy in this presentation. And has been said yesterday, we are having a very animated discussion here on issues related to the MAG and the governing council of ICANN. And in light of this, I would like to focus on the role played by government.

You have referred to the question of government as the central element in the system. The most important question that should be dealt with by the IGF.
Well, in fact, because I actually lived in different countries, in different regions of the world, and I do have some diplomatic and international experience, I think I have some reasons to say that the originality and the values that we are trying to put into place through the multistakeholder dialogue by using this multi-actor system is because not everyone agrees with the fact that this system should be in the hands of governments.
And we have also referred in a very excellent manner, and you defended your arguments, you talked about one government, several governments. And I don't think that this is the problem.
This is not the real problem.
The real problem is that governments should play a role.
But the question is, what kind of role? Should it be a predominant role or should they work on an equal basis with other partners that will make the Internet available to all of us and to all the people in the world?
Mr. Qian, you are coming from China and we heard what she said, and I come from a country that resembles your country, especially in the belief that citizens have in the special role that the state plays. And as a representative of France, I can say here that the values that -- of the system that we are trying to establish, including the ICANN, it is a very original idea.
But everyone has to find his or her role.
And to conclude, I would like to say that the work that we are carrying out here, and what I am trying to do in ICANN, especially in the President's Strategy Committee, is to take into account the opinions that have been expressed orally or in a written manner by people from across the world over a period of several months as part of open consultations.
We have posed very clear questions. Should this model be ruled by governments? The answer was no.
However, and I do agree with you, the way in which the opinions of governments are taken into account and implemented by ICANN should be improved. There's no doubt about that.
And this is why, as member of the PSC, I contribute. And I would like to contribute to this process of clarification and to make more effective the contribution of governments in ICANN.
ICANN is not the United Nations.
It is a technical body. And as I just said, some technical functions may have broader implications, and the opposite is also true.
So on the GAC, the last thing that I would like to say, and I do have some experience from the international area, you will find in GAC countries that would like to actively participate in the work. But -- And this is something that I am saying without any judgment. There are about 100 countries that are officially members of the GAC. And usually about 40 are present, and even fewer countries are really active in the work.
And this does not simply depend on the methods of work of the GAC, but it actually depends on the will of states on what they want to do with this body.
So having said all this, I would like to stress that IGF should be inclusive.
And the second point, yes, indeed, states do have a role to play but it's up to us to define what type of role and how it could be made more effective.
[Applause]
>>CHRIS DISSPAIN: Thank you. I am going to take a leaf out of Jonathan's book yesterday and ask if you can please keep your comments reasonably short because otherwise we will be here -- well, we won't because we won't have interpretation. But we won't get much done.
Parminder, I had you, and a gentleman here, and a gentleman here was first. He has the microphone. Please keep it short.
>> I will be as brief as I can. I am (saying name) for I.T. for Change.
I thought Emily made a wonderful summing of this morning's talk when she said she spoke with a creative ambiguity that was there in the whole conceptualization of enhanced cooperation and how every actor saw in it their desires.
I think that is true, but it is also true that the declaration of principles clearly laid down what we are all here for with a stable and inclusive Information Society.
And the Tunis Agenda spoke about how easy was a process of global public policy making for the particular goal of inclusive society.
And I think this is some fact, something that we cannot afford to forget.
So I was slightly disturbed when Chris, in his opening remark, said if I already have a domain name, do I care.
And I think that is a problem with IGF, and that's why I.T. for Change and 94 other individuals and institutions wrote a letter to the IGF saying there is a big democratic deficit that we have in IGF, and that's why that people who already have domain names or I.T. full addresses are the people discussing issues here.

The 6 billion people not connected to the net are not here. And by saying "Internet for All" means the next billion for us, we are saying the last billion doesn't matter.
I come from India which has a very strong tradition of developmental economics. And right now we are in a project where we are setting up 100,000 public access points with public as well as private participation so Internet can reach everybody. And that comes through public policy and public investment. I think that's something that the global forum has to take note of.
I am very happy with the remarks that the previous speakers have made, and I think that shows some kind of a frustration that many of us have with the whole IGF process. And I'm saying it positively, because if we ignore the frustration and we do business as usual, then we will fall prey to the remarks of those who already are questioning the validity and legitimacy of IGF as an institution itself.
By taking note of these concerns, by establishing enhanced cooperation as a meaningful process, we can, indeed, hope to bring some meaning and life into IGF.
We may, by doing that, make sure that IGF extends beyond 2010. But business as usual is going to be a very bad way to go about it.
Thank you.
>>CHRIS DISSPAIN: Can you give me one thing, one thing, that we could do that would help with that? Just one.
>> Yeah. I think that there were suggestions this morning as well. The 2003 general summit that set up the WGIG, which has basically gone into such a complex area that we don't have any idea about it -- Jeanette was a member of that and several other people as well. And the WGIG, had people from various stakeholder groups, came up with very innovative ideas on what the Internet governance could go about.
So I think as a part of the (inaudible) process, IGF can't be once-in-a-year event. That is a recipe for failure. I think IGF has to figure out, apart from being a policy deliberating space in connection with the U.N., in connection with other institutions that are already there, looking at setting up.
>>SPEAKER4: -based groups that can go into various issues, whether it is relating to cybersecurity, whether it is relating to access, and actually look at what are the issues in place, what is the role of the market, what is available for public policy. Come out with documents. The WGIG report was an excellent report, a fantastic output. Come out with documents like that which will actually say for this particular issue, we need ITU and ICANN and maybe UNDP to work on. Merely talking is not going to get us anywhere.
>>CHRIS DISSPAIN: So what we are saying is we need enhanced cooperation in the IGF to make this all work. There's a gentleman who has his hand up.
>>MARK BLAFKIN: Hi, my name is Mark Blafkin with the Association for Competitive Technology.
At the height of the WSIS debate over the future of ICANN and whether or not to replace it, a colleague of mine wrote an op ed in the Financial Times.
In it he wrote this effort is being driven under the guise of Internet governance, but it is really about Internet control.
The past few days, for me, have only reinforced that concept. Just look at who is calling for these kinds of changes today.
We all -- every single one of them has, shall we say, a flexible idea about free speech.
We all know China's story, but Brazil really isn't much better. Not only have they been caught essentially censoring political journalists, but they even censored the documentaries that were appearing on British and Brazilian TV about that censorship.
And then Silvio Berlusconi isn't even here but he is now calling for Internet governance in an Internet national forum. And, you know, as we probably all know, he has either bought up or sued every journalist that's ever tried to criticize him.
>>CHRIS DISSPAIN: So I am going to ask you to do me a favor.
Every time somebody says something specifically about somebody else, that somebody else feels, quite fairly, that they have to respond.
And all we do is we understand your opinion, and we understand their opinion, probably both of which we know already.
So I would appreciate it if we could be perhaps a little less specific about individuals and territories and just talk about principles.
>>MARK BLAFKIN: Sure. In terms of principles, I think we need to be very careful before going forward into these discussions about tearing down this bottom-up, multistakeholder body which is ICANN and replacing it with a top-down, government-led body where governments that have a penchant for essentially censoring free speech have a bigger say in the way that the Internet is run.
>>CHRIS DISSPAIN: Thank you.

Parminder, you are next and then Ayesha Hassan.
And I will get to you.
>>PARMINDER SINGH: Yeah, Chris. I would very briefly take the question you first posed about why should I care if my domain name works.
I think whatever I said in the morning and what I will say now has something to do with how we started to think so lightly about democracy and democratic values. The question is exactly about if I am getting my food, why do I care about who runs my country.
I won't say anything further. I can go into the issue, but it's the exact equivalence of this issue.
My friend, colleague from ICANN, said that technical policy and public policy are mixed up.
I know that they are mixed up. The line is not very clear.
But by using that the line is not clear, we can't completely obfuscate the issue. They are two different things and that's why they are two different terms. And it is relevant to the fact of the matter because, depending on whether it's more of a technical policy or more of a public policy, we bring about a policy-making structure which is adequate to the issue at hand.
If you are discussing how we can run a network, we would probably ask for technical expertise.
If we are talking about an issue where people are differently affected, we need political processes. And that's called public policy.
I think the discussion to that extent is very clear. And the problem is that Internet, which was a technical infrastructure run by people who had technical expertise, are not happy to let it go now that it has become a very strong social political force. We are differently, people's interests are affected and that can only be sorted out by a political process.
In the morning, the IPv6 session we gave a very good example of how, when resources become scarce because of IPv6 address space problem, then an issue which is technical could have a lot of political aspects of it. And the nature of governance around it may need to change.
Thank you, Chris.
>>CHRIS DISSPAIN: Thank you very much, Parminder.
Everton.
Then Ayesha, then Desiree, then Milton.
>>EVERTON LUCERO: Thank you, Chris.
I will be brief. In fact, I think it's much more useful at this moment to listen to the comments that are so rich in nature than to speak again, since I've had my opportunity in the morning.
But, anyway, my country was mentioned in a negative way. And I'm a diplomat. So if I want to return back home still in safety and with my job there --
[Laughter]
[Applause]
>>EVERTON LUCERO: So I'm obliged to say a few words about that.
At first, because it was completely false. It just shows a total lack of knowledge and understanding about one of the most vibrant and lively democracies in the world, which is Brazil, in which freedom of speech is a nonnegotiable value. And it is now adopted by society at large. And, in fact, when I, in name of the Brazilian government, present this kind of idea here, I do that on the understanding that, in Brazil, both the civil society, the private sector, the academics, they are all in agreement with that, because one of the main drives of our government is to have broader consultations and inclusion when defining national governmental positions.
So I would recommend you to please get informed about Brazil before making this kind of assumption.
Now, as I'm having the floor, there is something else that I would like to say, which is -- yeah, it was also mentioned that -- perhaps I misunderstood -- but that I was proposing replacing ICANN by some kind of a top-down approach led by governments.
I never said that. In fact, we are at the GAC. I am vice chairman. I am, in fact, very active within the Governmental Advisory Committee, because we believe in a multistakeholder model and we want to work together with all the stakeholders to improve it. We are only aware that there is a deficiency in that model in what refers to the representation and legitimacy of governments, in particular, from the developing world.
And we want to raise that issue and get to a common understanding on how to address it. And I will not say anything further, because it will be better to --
>>CHRIS DISSPAIN: Can I ask you, in the same way that I asked that gentleman, can I ask you, can you tell me just one thing that you would like to see happen in respect specifically to that, to the GAC and ICANN, that you think would help.
>>EVERTON LUCERO: One thing that could happen in the GAC, you mean?
>>CHRIS DISSPAIN: Or one thing that you think could happen within the ICANN framework and its

relationship with the GAC to improve it, from your point of view.
>>EVERTON LUCERO: Yes, sure.
Okay, one of the items that are included as a benchmark against which ICANN's progress will be evaluated under the Joint Project Agreement is precisely the role of governments. And one of these items say that the ICANN board should engage with the -- with governments, and, in particular, with GAC, to elaborate further on how the interaction between the board and the GAC should -- could be improved.
We have seen in the past some improvements, I acknowledge that. But that has not been enough. And there hasn't been a consistent and dedicated study and interaction between the board and the GAC on that.
One first step would be to have that.
Thank you.
>>CHRIS DISSPAIN: Thank you, Everton.
I have Ayesha next.
>>AYESHA HASSAN: Thank you. Ayesha Hassan, on behalf of the International Chamber of Commerce and its initiative, Business Action to Support the Information Society.
Chris had posed a question asking for input from a broader business perspective. So just for the benefit of those of you who don't know about the International Chamber of Commerce and BASIS, I will mention that we have members and networks in over 120 countries. And BASIS includes both members of the ICC network, as well as several business associations. And, in a nutshell, there are companies and associations with the interests of SMEs and across sectors involved in the work that we do to bring business expertise to the IGF and other post-WSIS activities.
But it would be useful to share a few thoughts from the business perspective on enhanced cooperation.
It is fundamental that informed policy choices have the input of all stakeholders. That is one of the benefits of the IGF. And what we have observed is that there has been a lot of progress on enhanced cooperation and communication among many of the organizations and stakeholders at both a national, regional, and international level, between intergovernmental organizations, technical organizations, civil society organizations, and business organizations. And we see this as a positive progress.
We continue to work to bring more business experts into these discussions and are also heartened to see the number of national and regional dialogues and IGF-related activities that have grown up in the past year. This is progress. And this is enhancing cooperation in a way that will have an impact on policy choices and the information that all stakeholders need in order to make those choices.
Thank you.
>>CHRIS DISSPAIN: Thank you.
Desiree, I think you were next.
>>DESIREE MILOSHEVIC: Thank you. I just wanted to make a very brief comment that maybe goes along to what Ayesha has said.
And speaking just as an Internet users, I would say the whole IGF process really reminds me of the title of one book, called "freedom is one endless meeting."
So I think what we're witnessing today is really this process, where we're going through building a stronger IGF and getting more participation from all stakeholders. So I'd like to end it on a positive note.
Thank you.
>>CHRIS DISSPAIN: Thank you, Desiree.
Milton.
>>MILTON MUELLER: Thank you.
I'm Milton Mueller, Syracuse University and the Internet Governance Project.
I'd like to relate back to the very powerful statement of the Chinese representative.
It would be, as anyone who knows me, very unusual for me to agree with the Chinese government on anything. However, the way I understood his comment is as a call for honest dialogue about the role of governments in ICANN about enhanced cooperation and about the Tunis Summit.
What we got from the panel this morning was that three, or maybe even four of the panelists, defined "enhanced cooperation" as anything good that happened after WSIS. And they know, they must know, and we know, and certainly the Chinese and Brazilian delegates know, that that is not what was at issue in the Tunis Agenda. That was not what was being debated. And that is not what brought the IGF into existence.
Now, to move forward on a positive basis, let me say that we organized a workshop on the future of ICANN and its joint projects agreement with the U.S. government. In other words, we --
>>CHRIS DISSPAIN: Milton, could I just interrupt you for one second. I'm not going to stop you talking about it. But can I ask you first, what do you think enhanced cooperation actually means?
>>MILTON MUELLER: "Enhanced cooperation" meant governments and civil society negotiating the role of

governments in public policy for the Internet.
>>CHRIS DISSPAIN: Right.
>>MILTON MUELLER: Global public policy. The word "global public policy principles" appears twice in paragraph 70. There's no doubt about what it means.
So -- Now, we may have severe disagreements about the role of governments. Most of you probably know by now that I'm not a big fan of governmental control. But at least let's have an honest dialogue about it. So this is what we tried to do in our workshop.
And is this an appropriate time to report on that?
Okay. So we recognize that we are reaching a critical juncture in September 2009. That is when the U.S. joint projects agreement expires. The Joint Project Agreement, or JPA, is a policy oversight vehicle through which the U.S. government supervises ICANN.
Our workshop took up the question whether we should allow it to expire as part of the transition to a more internationalized ICANN.
Now, we heard different views. We had two government representatives. We tried to have a third, but, unfortunately, the Russian representative could not attend. And we had private sector representatives and academic, civil society representatives.
The interesting thing is that I cannot say that there was a consensus on any particular view, but we can say that there was a predominant view coming out of this workshop.
And that predominant view was that the U.S. government should step out of the JPA and let it expire and that it should do this as soon as possible, that is, in September 2009, and that the government -- that the whole point of ICANN is to be independent of territorial sovereign so that it can engage in global cooperation and coordination, not to have governments sitting over it in some kind of controlling fashion.
So I think it's interesting that when we had an unconstrained dialogue, we did not reach full agreement. We had some differences. But we did, I think, come to a very interesting conclusion that the U.S. government should, indeed, step away from ICANN and allow it to operate as a multistakeholder entity, of course, with some new accountability mechanisms.
Thank you.
>>CHRIS DISSPAIN: Thank you, Milton.
I have hand up at the back. And then I have Suresh and I have Raul and I have the lady there.
>>IAN PETER: Thank you. Ian Peter from the Internet Governance Caucus.
I again want to take up the comments from the government of China, and to say thank you very much for those comments. And it is not only governments that will agree with what you're talking about.
Many of us feel that the root zone authorization process should be changed. And I think you'll find support from that broadly in civil society, you'll find support for that in many other cases as well.
But adding to that, I think we should thank the U.S. government for the role it played taking on this role in the beginning of the Internet.
There was a time when this function was necessary. There was a time when if this function had not existed, takeover by business would have been something that would have been not in the best interests of the growth of this. So there should be thanks to the U.S. for the role, the legacy role, I must say, that they did carry when the Internet was very young and needed such a role.
I'm in the country of Mahatma Gandhi, and I do know what Mahatma Gandhi would say about a foreign government continuing to carry a role when things have grown up and we want to do it differently now. Where there will be difference is what should happen instead of this unilateral control mechanism.
Most of us in civil society would like to see this carried on as a -- perhaps a function of ICANN, which gives us reasonable multistakeholder input.
So, in fact, we can look at that particular function as absolutely unnecessary.
If ICANN has made a decision, having consulted on a multistakeholder basis, there is no need for any authority to override that decision, because everybody has been consulted.
So, yes, I would definitely agree with the government of China, this is an issue. We should discuss it. Change is necessary. But I would see the change is to abandon the legacy function. It is no longer needed.
Thank you very much.
>>CHRIS DISSPAIN: Thank you.
I promised -- I've been ignoring you for the last ten minutes. My apologies.
>>STEVE DELBIANCO: Steve Delbianco with the Net Choice Coalition.
This morning, Raul Echeberria said that the enhanced cooperation was a compromise goal and it was admittedly ambiguous and it was arrived at in the final days of Tunis to avoid having to choose -- to defer having to choose between existing or new mechanisms for Internet governance.

And it reminds me of something I've done with my teenage son who is nagging me all the time to choose between letting him use an existing car or buying him a new car. And I tell him to work on enhanced transportation instead.

But, seriously, I care about enhanced cooperation, because I want to avoid, I definitely want to be clear, I want to avoid a new mechanism for Internet governance that might be designed by and for government. Instead, I am one of those folks at ICANN who works every day on enhanced cooperation within existing mechanisms, and for years on ICANN working groups on WHOIS, for instance, trying to make WHOIS more accurate and accessible while also trying to preserve the ability for individuals to guard their privacy.

Now, there are individuals from governments who have been fantastic participants in these working groups. And I suppose it's okay to mention an individual's name if it's complimentary. But Mr. de la Chapelle, for instance, rolled up his sleeves and worked with us.

But the larger government organization in ICANN, the GAC or Government Advisory Committee, has not been as effective in this working group structure. I think there's a lot of promise there. But, currently, it takes too long for the GAC to answer follow-up questions, and it tries to get involved as a body as opposed to experts within a group.

So if governments actually avoid cooperation for the next two years, they would be able to look back and say that enhanced cooperation didn't work for the Tunis agenda.

Now, a cynical person would interpret that to say that they just want to justify the creation of a new mechanism. But I don't want to be cynical, not here at the IGF, it's an optimistic time and an optimistic place. And I would like to close by inviting governments to roll up their sleeves and work closely with those of us in the private sector here at IGF and at ICANN on enhanced cooperation.

We can do it.

>>CHRIS DISSPAIN: Thank you very much.

[Applause]

>>CHRIS DISSPAIN: Lady here.

>>LIESYL FRANZ: Good afternoon. My name is Liesyl Franz. I'm with the Information Technology Association of America and part of the ICC/BASIS group that is here with industry in Hyderabad.

I want to make a couple of observations and just a couple of quick comments, as briefly as I can.

First of all, I just want to mention that I think we need to really be careful when we use the term "critical Internet resources," because, really, the critical Internet resources are much broader than perhaps what we think of as the domain name system and the managing of the DNS.

There are many tools and products and services and efforts that go along with allowing the Internet to work and provide the services that it does across the globe. And so we need to be clear that when we talk about Internet resources, it's broader than the domain name system. And I just want to make that distinction.

The second thing is that I think we also need to be clear that when we talk about ICANN as either managing the Internet or perhaps it's more correct to say that it facilitates the operation of the Internet by the job that it does in the domain name system.

Finally, Chris, you asked us to -- us in industry, to answer a question about what we thought enhanced cooperation was.

To -- in full disclosure, I was not in the Tunis process, so I'm much newer to the process than some of you. But from industry's perspective, I think, first of all, I perhaps want to add the word "industry" to the enhanced cooperation that was mentioned earlier between government and civil society, and make sure that industry is part of that discussion as well.

But perhaps we could look at it as enhanced cooperation, building off of what Steve Delbianco said, is looking for opportunities not only within an organization or within an entity, but across entities as well, bringing in all the groups that have done good work on Internet issues or the issues that IGF is undertaking, such as other organizations or other entities that are dealing with the themes that we discuss here, for example, cybersecurity.

We can talk about working in the IGF and in the IGF process to enhance cooperation amongst its stakeholder groups. But we can also talk about the IGF working with other organizations that many of us are engaged in outside of the IGF process as well.

Thank you.

>>CHRIS DISSPAIN: Thank you very much.

I have Raul next.

>>RAUL ECHEBERRIA: Thank you, Chris.

First of all, I would like to correct something that has been said about the colleague that is trying to use the enhanced concept applied to the car for his son.

My correction is that Bertrand de la Chapelle used to participate as civil society representative in the WSIS.
So I would say that this is a case of enhanced cooperation from civil society to the governmental sector.
>>CHRIS DISSPAIN: Thank you.
>>RAUL ECHEBERRIA: But I can speak about enhanced cooperation.
Really, I don't want to sound arrogant, but I can say how this expression emerged in the summit and what was the reason to include that.
I said something this morning. But, yes, it is ambiguous. It happens always in these kind of meetings. I learn very much during the summit. But when the last day the ambassador who came from Pakistan sent many of us to a closed room to get an agreement, we had to work in how to write things in order that those things could be acceptable for everybody. This is necessary in those kind of cases.
So I know exactly what enhanced cooperation means at that time. I don't know if it is important, because once it is written, everybody is free of giving a different value to that expression. Probably this is what we are talking about. But at that moment, there was no agreement for creating anything new, as it is not necessary for getting agreement for not creating something.
The agreement is necessary for changing things.
So enhanced cooperation for the recognition that the things should be changed, should be changed in the future without creating new mechanisms. And this is what we have been working.
So I disagree with Professor Mueller in the sense that this is what enhanced cooperation is about.
So I disagree with Professor Mueller in the sense that this is what enhanced cooperation is about.
And it is true that there is another paragraph that says that enhanced cooperation is for permitting governments to participate in public policy issues.
And let me say why this paragraph was accepted for everybody. Because -- participation in public policy issues is a natural part of governance. So it doesn't make sense to discuss, to argue, to question that right. But we still could have different views about what are the issues regarding Internet governance that have implications in public policies, or what are the public policy issues in these topics of.
So some issues remain open, still open.
>>CHRIS DISSPAIN: Thank you, Raul.
I have SURESH and then I have Bertrand.
>>SURESH RAMASUBRAMANIAN: Thanks. I have just two things to point out. And the first is that several of the I wills that have been blamed on poor Internet governance and poor cooperation can possibly be blamed on poor local coordination and efforts locally.
For example, in several developing countries, you have a monopoly ISP or you have, shall we say, anti-competitive policies in the Internet sector which might serve to limit connectivity or make it much more expensive than it should be. Or in some cases you have ISPs that may not possibly be capable of using Internet resources, they have IP addresses and such, in the most optimum manner possible. And then when they request IP addresses from the RIR, they get told that their application might not be feasible at this time because they have yet to manage their current resources acceptably and approve the demand for new IP allocations.
Raul and the other RIRs in this room could bear me out on that.
Yes, and enhanced cooperation should not be interpreted as enhanced control.
And I will answer your Pink Floyd song, Emily, with this poem by John Donne. "No man is an island independent of the main." And it ends with "Ask not for whom the bell tolls. It's tolls for you."
It is tolling for everybody here. Unless we actually cooperate, unless we actually use all the best practices that have been developed in several forums and which have been made available, including by, quote-unquote, evil, or somewhat perceived, organizations like various U.N. agencies and the OECD, if these are actually taken out and if these are translated into action, developing countries will find many people who will assist them with technical support and with the implementation of these best current practices. I think you would actually see a dramatic improvement in both local Internet conditions and truly enhanced cooperation that does not depend on wrangling in the IGF.
Thank you.
>>CHRIS DISSPAIN: Thank you.
I have Bertrand next.
>>BERTRAND DE LA CHAPELLE: Thank you very much.
And I have been almost blushing for being singled out, although when Raul was mentioning that I was also in civil society sometimes brings me to trouble at the moment.
That was a private joke.
By the way, I must notice that there are several actors who were, during the WSIS, in the governmental

environment who actually moved to other arenas, are now working either for the managers of the ccTLD in their country, in the case of Martin Boyle and there are other people from other countries.
And I have seen likewise, people who were in civil society are now participating in most of the IGF space within the delegation of their own government.
I think this circulation, and I say it very seriously, is extremely important because it makes the different perspective circulate among the different categories of actors.
The second thing is the main purpose and the main benefit of multistakeholder processes is to provide the different perspectives on a given issue.
And this is the difference between what is necessary when you draft a document, when you have to agree by a certain time and date and move forward, and what you need to do afterwards to act upon this element.
It is true that the expression "enhanced cooperation" as well as the role of ICANN, the role of the U.S. government in the future regarding ICANN in particular has been the big elephant in the room in many rooms.
And the interesting thing here is that talking about elephants -- I often use this blind man and the elephant analysis.
You can imagine having a vase with flowers. If you have several people around the vase and each describes what he sees, there are different perceptions that come from the different point of view.
On a given issue, what we need to do before rushing to solutions is to see whether we have the complete picture and the complete understanding of what the others feel about the issue, how they see it.
In this respect I would like to pick two comments made this morning, one by Parminder saying when something becomes so heavy and so sociopolitical as the Web today, who makes decisions is important.
And it means that we're getting into policy issues. This is the comment I made this morning about IPv4-IPv6. When you get into scarcity, it becomes a policy issue.
And the more the policy dimension of an issue grows, the more the question of what is the role of governments grows.
You will notice that I didn't take a position in the sentence to say it should be the governments alone or it should be in a separate environment. Just said the more the policy dimension of an issue grows and it moves away from technical aspects, the more the question of the role of governments is appropriate.
The second remark was Everton this morning which said in that case, representation and legitimacy in decision-making for policy is a key criteria.
I think the term legitimacy is very important. One of the battles is what do you found legitimacy upon.
One solution for any organization is to attach it somewhere. And the legitimacy comes from above.
The IGF has, although it is not an organization, some legitimacy coming from its attachment to the U.N. Secretary-General. But let me be frank. If all of us were not developing within the IGF processes that are inclusive, that are multistakeholder, that produce results, this legitimacy would win nothing.
So legitimacy is as much a process-based, an inclusion-based factor than an attachment or a supervision of any sort.
In this respect, I would like to recall the expression "enhanced cooperation" which is basically to enable governments on an equal footing to carry out their roles and responsibilities in international public policy pertaining to the Internet and not in the day-to-day operations.
I would like just to highlight for the sake of better mutual understanding that there are two possible interpretations of this sentence. And I will not choose. I just want us to be aware that there are two possible interpretations.
One is to focus on the fact that it is talking only about governments and that it is about the equality among governments, and it is certainly a component.
The other element is that the equal footing can be also understood as the relationship and the roles and responsibility of governments versus other stakeholders.
There is an ambiguity here, and it is not a problem, because the reality is the relevant paragraphs are the respective roles and responsibilities of the different stakeholders.
Let me be very clear in this respect.
A true multistakeholder environment involves all the actors. But the roles and responsibilities of the different actors will vary according to the issue, the venue, and the stage of the discussion.
You can have very technical issues where governments are marginally involved, but they must be there because otherwise the picture wouldn't be complete.
You can have very policy-oriented issues that used to be addressed by only intergovernmental discussions where we need to have at least, and as much as possible, participation of the other actors.
On an issue-by-issue basis, the balance will change. If we talk about child pornography, excuse me, it is going to be different actors and with a different balance of policy engagement than about the policy for

distribution IPv6-IPv4 addresses.
So if we begin to talk about issue-based network, we will make progress.
And finally, I want to just have a mention regarding ICANN and the evolution, also in the sake of distinguishing different problems.
When we talk about the evolution of ICANN, there are basically different issues, and it's important to address separately the question of the functioning of ICANN today that is covered by the JPA, more or less, and the question of the evolution of the IANA contract.
These are two separate issues. They might have different challenges, different time lines, different ways to address them.
But what I want to highlight, and it's an official comment on behalf of the French government, is that regarding ICANN, one, the introduction of IDNs is putting us with a challenge of managing a multiscript domain name system.
This is the most important evolution in the domain name system.
It cannot not have political implications in terms of the roles and responsibilities. And in this respect, we support the notion of a multi-polar management of the DNS system because it has to be a distributed responsibility within interoperability.
The second and last point is that the legitimacy that I was mentioning has to do with the way work is being done within ICANN. And in this respect I pick up on what Chuck Gomes and Steve Delbianco were mentioning. The working methods within ICANN and the GNSO reform and the reform of the working groups is one of the critical elements that should be more taken into account in the PSC process so that we move towards a fully internationalized and fully multistakeholder ICANN by the end of 2009.
Thank you.
>>CHRIS DISSPAIN: Thank you, Bertrand.
[Applause]
>>CHRIS DISSPAIN: Patrik, you wanted to say something? No, you have changed your mind.
The gentleman there.
If we could have a microphone there, please.
Can I ask, one of the workshops that's been run here in this week is on participation, participation in Internet governance.
I don't know if there's anyone in the room who was involved in that workshop, but I would be very interested to hear from them, if they are.
Yes, sir.
>> Hello.
I am (saying name) Patel. I'm a regional commissioner with the government of India, Department of Customs.
I am really privileged to have not only my country and my department, my government hold this kind of meeting in my country, so I am really privileged to all the foreign dignitaries and delegates.
I just want to make two points. In the morning session we had a theme for enhanced cooperation.
When we select the themes like enhanced cooperation, they are too ambiguous, too general. Is it not possible for organizer to have some kind of very specific or very meaningful theme which can throw some kind of new ideas about that or some kind of new specific contribution to that rather than having some kind of ambiguous concern like enhanced cooperation?
>>CHRIS DISSPAIN: Are you able to come tomorrow to the way forward session tomorrow afternoon?
>> Yes.
>>CHRIS DISSPAIN: Because that's where we can discuss in detail the way forward for the IGF.
>> Second point I want to make, that any IDN in this kind of forum we raise it, any conceptual idea you float it, there will be ten people speaking for it, there will be nine people speaking against it.
So that takes us to how some kind of authority or some kind of agreed authority which will have final say on that regardless of the opening of (inaudible).
That's all.
>>CHRIS DISSPAIN: Thank you.
I have -- one second. I have Byron at the back and then the gentleman in the blue shirt or green shirt. Byron.
>>BYRON HOLLAND: Thanks, Chris.
I just wanted to say also thank you to Bernard. I thought he did a great job on giving some more clarity around the notion of multistakeholder and the continuum in which the importance of various actors in a multistakeholder environment hold.
What I wanted to say primarily is the Internet is what it is today to a great degree because of the multistakeholder bottom-up environment that it was created with.

It really is a dynamic, living, vibrant organism. And before we throw on additional layers of government and governance, another layer, a blanket or a cynic would say a wet blanket on it, we need to be very careful about doing that.
I would ask all the participants in this room to think back ten years, and if we said let's let an intergovernmental organization create and drive the Internet, where would we be today?
I think the next question I would ask is why would we go forward differently for the next ten years of the Internet?
Now, I hear what Parminder says and that line of reasoning, and I'm not so naive to think that because of the scale we're at that the next ten years aren't different than the last ten years. And that governments are really waking up to the importance of the Internet, and the Internet to governments.
But I have also heard considerably -- or considerable discussion around the role of the GAC, that there are 100 members, 40 show up, and a handful really participate and do the heavy lifting. Roll up the sleeves I think is the expression we heard just a little bit earlier.
So there is an existing structure for governments to participate in that, from all accounts, is a fairly underutilized one.
In Seoul, the OECD meeting, there were a number of stats that were thrown about, but one that really struck me was in the last ten years, the general economy has grown, and I probably have the numbers somewhat wrong, but the order of magnitude will be right, that the global economy has grown some roughly 50% in the last decade but the Internet economy has grown roughly 12,000% in that same time line.
So before we jeopardize that, I think we need to think very carefully about additional layers of governance and government. They have an absolutely critical role to play, but we do have good vehicles, and by all accounts, underutilized vehicles for them to play that role in.
>>CHRIS DISSPAIN: Thank you, Byron.
[Applause]
>>CHRIS DISSPAIN: I had hoped that we would have time to broaden this discussion out onto some other things, and I do just want to quickly deal with participation, because I think it's important. It ties in with some of the other comments we have had about enhanced cooperation within the concept of the IGF, people not being here and so on.
So, sir.
>>WILLIE CURRIE: Yeah, thank you. Willie Currie from the Association for Progressive Communications.
>>CHRIS DISSPAIN: Hold the microphone up like this, close to your mouth.
>>WILLIE CURRIE: Is that better?
I'm going to talk about a workshop that was working towards the code of good practice on public participation and Internet governance. This is not strictly a matter of public policy principles in terms of enhanced cooperation, but looks more at procedural arrangements with respect to Internet governance.
And the aim of this workshop was to work towards a code of practice on public participation, transparency, and access to knowledge or information within Internet governance institutions.
And the idea is to see if as many as possible of the institutions that are dealing with Internet governance could adopt this code of practice.
Within the workshop, there was an agreement that the next steps would involve a comparative mapping of exactly how our Internet governance institutions are treating access to information, transparency, and public participation.
And the second step would then be to draft a code of good practice and to take it forward from there.
The organizations that are leading this process are the Council of Europe, the U.N., Economic Commission for Europe and the APC.
Some of the institutions represented here, the NRO, ICANN, and ISOC, have agreed to participate in the comparative mapping process.
This is not to deal with the exact content under discussion here, but I would like to say that as a civil society organization, APC does associate itself with the remarks of Ian Peters of the Internet Governance Caucus, of Guru and Parminder from I.T. for Change and of Milton Mueller from the Internet Governance Project.
Thank you.
>>CHRIS DISSPAIN: Thank you very much, Willie.
I have one final comment, final comment, from Jean-Jacques right here.
>>JEAN-JACQUES SUBRENAT: Thank you. Just a quick comment to rebound on what has been presented.
Maybe you noticed that at its last international meeting, ICANN board announced the creation of a new committee which is called Public Participation Committee. And I have the honor of chairing that.
So of course I just wanted to mention.

And I have the honor of chairing that. So, of course, I just wanted to mention that we will be very attentive to your recommendations, and we will try to improve the public participation in ICANN, naturally.
Thank you.
>>CHRIS DISSPAIN: Thank you, Jean-Jacques. On the principle that you can never keep a good RIR person down, Raul.
>>RAUL ECHEBERRIA: This is a very short comment.
There was something that was mentioned many times, and probably for some people, it could be appreciated as a disagreement. And I would like to clarify that.
This is the relationship between ICANN and the U.S. government.
I think that ICANN has received broad support to become an independent organization and to finish the relationship with the U.S. government.
I think that most of us here agree that a single government should not have a special role in the Internet governance. And sometimes when it is said in these public forums, it is presented as it would be a point of strong disagreement. And I think that is -- it has broad support idea that this is something that has to change.
>>CHRIS DISSPAIN: Yeah, I think that's right. I mean, there's broad support for the principle of that. There's no consensus about what should happen instead.
I'm going to ask Emily to sum up for us briefly and then hand you back to our chair for closing remarks. Emily.
>>EMILY TAYLOR: Thank you very much, Chris, for the job of summing up this afternoon's debate, which is quite challenging.
I must say, as a listener to the debate, I am quite amazed and heartened by the quality of it and the different points of view that were being put across by various people.
It was interesting how the -- how it shifted and exchanged and almost transformed at one stage to a discussion not about enhanced cooperation, but about the role of the IGF itself. And, no doubt, those themes can be taken up in the "taking stock" and "looking forward" sessions.
There were some very strong expressions of frustration, not just with the IGF, but also with the current way that things are organized, and particularly as ICANN effectively being the elephant in the room.
Others expressed the view that if you want something out of something, if you want to get something out, you have to put something in. And those sort of themes were expressed both in the context of the IGF and how it might be improved, but also in the context of ICANN.
Again, we heard different views of what enhanced cooperation might mean. Is, in fact, the IGF, as one speaker put it, an example of enhanced cooperation at regional and national levels? Is it about, as another person said, bringing people together across organizational and stakeholder boundaries? Is it about sharing good practice as a development goal, as a way of achieving development objectives?
And one person mentioned very strongly that back in the Tunis days, enhanced cooperation was never supposed to be about creating new institutions.
So, again, a plethora of different interpretations.
And I really felt, for the speaker who asked for, you know, can we have a better -- you know, more clearly defined term, please, the ambiguity is certainly being played out.
There was a strong focus on ICANN, its evolution, the role of the GAC, again, expressions of frustration from some quarters, practical suggestions for improvements from others, the importance, the emphasis on participation and the people who are doing the real heavy lifting, both within the GAC and other sections of the community, the importance of reforming working methods.
Now, there was a whole theme about expressions of desire that one government, the U.S. government, should step out of its role, its current role, in authorizing root server changes. And while several people expressed that, and one speaker said, and some new accountability mechanisms will need to be put in place. I don't think I heard very many concrete proposals of what those accountability methods would be. And perhaps that's something for us to take forward.
So that's what I've taken out of this afternoon's discussions.
Thank you, Chris.
>>CHRIS DISSPAIN: Thanks, Emily.
[Applause]
>>CHRIS DISSPAIN: Now I'll invite our chairman to sum up.
>>MADHUSUDAN MYSORE: Thank you, Chris.
Hello, yes. Thank you, Chris, and thank you, Jeanette.
This has been a fantastic -- hello.

I think it needs Chris only for this mike to work.
Okay. It has been a fantastic debate and a very, very active and emotional participation both in respect to the role of IGF on the whole, and also as some of the risks and the kind of especially in the first half of the discussion when we were talking about IPv4 to IPv6 migration, is it really a risk? Is it -- is there an operational concerns? Is there a technological concerns? And all of those things.
But let me just give you an example, that I work for Tata Communication, where we are the peer-one ISP globally, and that we have migrated successfully since last year. We have been successfully working on that. But it's not that we did not go through the risks or that we did not go through the concerns or the issues what all of us, as a part of the discussion, we did speak about it. But having said that, is there a business case or is there a business going forward on a standalone basis for V4 to V6 migration, I don't think it is more specifically related to V6, but it is more of a futuristic, rather existing address availability, is that a problem. If it is, if all of us together are convinced that number of addresses or number of address books is an issue, then I think there is a good case for what we need to do going forward, as such.
And second point which I thought it was one of the very, very good discussions, enhancement of participation, whether it is public, whether it is role of IGF itself, and then how the government itself should be able to help on this. Then I can say that from both service providers and as well as from the government, I think there is no single lead or a lag. You cannot say who needs to take the lead on what, and there needs to be a joint, though joint will never get into a single ownership. But still, in this case, I think it needs to be a joint ownership, which we need to drive it together.
Anyway, thanks a lot once again. It has been a fantastic discussion. And have a good evening to all of you. Thanks.
[Applause]
>>CHRIS DISSPAIN: Jeanette.
>>JEANETTE HOFMANN: Thank you.
I'd like to make a short announcement on behalf of the regional ccTLD organizations. Tomorrow is a workshop with a very nice title, "A Trip Around the World in Eight ccTLDs." And one of the issues we will pick up is IPv6. The workshop is at 11:30.
Thank you.
>>MARKUS KUMMER: Another announcement. There was a request to report on one of the regional IGFs, the one that was held in Strasbourg.
I don't know whether the organizers are ready to do so now. Otherwise, a possibility could be to do so tomorrow.
We have a change in the program, insofar -- I said that in the morning already, and it is up on our Web site. The afternoon session will begin at 3:00 and not at 2:00. That means we can extend the morning session until 1:00.
So the morning panel may go on a bit longer than originally anticipated on emerging issues. And maybe we have some time after that for reports on the various national and regional events.
Is there the representative from the Eurolinc in the room? Are they ready to report now?
I'm not sure whether the interpreters will stay on, as we have reached the end of 6:00. They're willing to have -- okay. We'll try and do it tomorrow.
So if there are reports, tomorrow morning, let's say at half past 12:00 or so, they can add that to the morning session.
This is, I think, all I have to say, and the usual reminder to hand in the earphones.
Thank you. Have an excellent evening.
>>CHRIS DISSPAIN: That's it, everyone. Hope you enjoyed yourselves. We'll see you tomorrow.
[Applause]