CR – LACRALO Capacity Building Session 3
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Jose Arcé: Let me introduce to you the first speaker and I would like to thank her for being here – Elise Gerich is the Vice President of IANA so Elise, if you want to start, please go ahead.

Elise Gerich: I apologize that I am unable to speak in Spanish. It's not a language I learned except for to say como estas or muchos gracias. But I do apologize that I have to speak in English. So we have sent our slides, but a little bit late, so what I'll do – I'll start walking through the slides while Gisella here tries to get them uploaded.

What I'd like to do today is introduce you… There's three topics that I'd like to cover today. I'm not so sure how much you know about the IANA. I'm assuming that you know what we do and that's the protocol parameters for the IETF, the IP addressing and autonomous system numbers that we work with the IRIs and particularly LACNIC for this part of the world. And we also take care of the administration of changes to the root zone in the domain name system.

But what I'd like to talk about are some of the other things that we do and I'll talk about continuous improvement that we've done with our procedures and processes in the IANA department. Some of the other services that we offer that are outside of the contract that we hold with the Department of Commerce from the United States – cause we do do other services – and then some links to statistics of some of our work that you'll be able to look at if you're interested.

Talking about some of the continuous improvements – we've been involved with a program called EFQM so IANA has had a project called Business

Excellence and this project is based on EFQM. It's a European standard for quality management and every year what we do is we target areas to have improvements in the services we offer and in the procedures and processes and the measurements we do for the services we offer.

And then at the end of the year we have what's called a self-assessment. This is a well-defined and rather well-documented and rigid process called EFQM and year over year we've had significant improvements in our score and this year we actually had a 50% improvement over last year's score. I don't expect to have that happen very often, but one of the reasons I think we had such a significant improvement was that we had gone through all of our documentation for the processes and procedures and the policies that we implement on behalf of the communities.

And we said, well, some of them are in narrative; some of them are in kind of online form. Others are just kind of hand-written notes and some of them are in lots of people's heads. So we came up with a formalized process flow and we documented more than 50% of our processes in this common process model and now we are doing that for the other half this year.

We're also looking at more of our key performance indicators. So previously we have agreements to give reports to the IETF and to the U.S. Government Department of Commerce. And those are reports that measure what they'd like us to tell them that we're doing. But what we decided we needed to do was to see - what were our key performance indicators for the services that we offer.

For instance, how long does it take us to respond when we get a request and what should… so we're working more on not just… we did define many of these and now what we have to do is set benchmarks and start measuring ourselves and say what improvement we want to see in delivering some of these services.

So I mentioned this. This is just to demonstrate that we did do a lot of standard process documentation and it's available so that as we bring on new staff, they don't have to just hear the history of what they're supposed to be doing, they

actually have a road map and they can follow exactly the steps for managing a delegation, a re-delegation, the assignment of an IP address or the registration of a new protocol for the IETF.

And one of the other activities in the EFQM model is to say, "Okay, you've done a lot of things to improve your internal processes. You've come up with some key measurements that you want to yourself against, but what do your customers really think of you? Do they like what you're doing? Is their perception of your service the same as your perception of your service?"

So this year we're coming up with a survey and we'll be sending it out to our constituency bases of the ccTLDs, the gTLDs, the RIRs, the regional internet registries and to the IETF and IAB who are our primary recipients of the service that we offer to see how they perceive our service and then we'll analyze that and try to make improvements based on their input.

As part of improving the processes, we also revised some of the templates that people have been using over time and this was based on input from the community. For instance, we used to have a single IPv4 request template and an IPv6 request template and now we've collapsed them into using a single common template. Of course you know that we gave out the last block of IPv4 addresses that the IANA had in its free pool, so it's kind of practical to have a single form because we really don't have any IPv4 to distribute at this time.

However, the ASO, the numbers supporting organization, is planning to present this week a new global policy which will allow the different internet registries to return blocks of IPv4 addresses that they want to put into the free pool which will then allow the IANA to distribute those to the various internet registries as needed, on a needs basis. So that proposal will be put before the ASO sometime this week.

So security and continuity of services - also of high importance to our department - the IANA Department. So we do have a security plan and we review it and revise it annually, so we've just published internally our fourth annual security plan and as for continuity of service, we decided that we needed

a year ago to confirm that if the servers or any of the other databases that we have where we maintain information should become unavailable or offline, that we would have redundancy in another part of the geographic locations.

So we've had one continuity exercise just about a year and a half ago and we're in the process of planning a second one. And our target for being able to bring all our services back online is four hours. That may seem like a long time, but we figured that we would start with this and make sure that we could make this achievable and then we would try and improve on it as time goes by.

So the next slide is about DNSsec – Domain Name System Security. So you probably have heard that the root was signed about a year and a half ago. And when the root was signed, we set up a system where we have key changing ceremonies every three months and there are representatives from all over the world that join us at one of the two locations, either in Los Angeles, California or in Culpepper, Virginia. And we have a key ceremony where we roll the keys. And this year we just had ceremonies 7 and 8 – they were completed successfully. Actually, not this – one at the end of 2011 and one at the beginning of 2012.

These ceremonies are actually streamed live so if you ever are interested, you can go to this website that I have logged here and you can watch it as it's happening. It's kind of like watching paint dry. It's a long four hours and not much really happens but if you're ever interested, you could log on to one of the key signing ceremonies and watch it in progress.

An outcome of rolling out the DNSsec - or Domain Name System Security - was that we wanted to make sure that it was audited and that it met all the security requirements to fulfill the security and stability of the root. In order to do so, we contracted with an audit firm and they gave us certification - a SysTrust certification – a year ago when we first did this and we just renewed it this year at the last ceremony. So we're quite pleased to say that we've passed an audit two years running for having a very secure and trustworthy system for rolling the keys.

So now I'll mention some of the other activities that the IANA Department does. They're not under the contract, as I said before, with the Department of Commerce. These are activities that we do as part of our day-to-day responsibilities to other organizations. So the Time Zone Database – I don't know – is everyone aware of the Time Zone Database and why you care?

Well, it's important. The clocks on your laptops wouldn't synchronize if you didn't have the Time Zone Database. Your mobile phones wouldn't know when Daylight Saving Times came along or that you were in a different time zone. The Time Zone Database keeps track of all the time zones and the changes that various countries and entities around the world make to time. And this Time Zone Database – for decades – was managed by a couple of volunteers.

One of the volunteers worked for the National Institute of Health in the United States. Time was a hobby; it wasn't a job. And so these volunteers that had been managing this for decades decided that it was time to retire and so they needed to find some other way to make sure that this service that they'd been maintaining for so very long, that all of our technology or most of our technology is dependent upon was maintained.

So they reached out to the IETF and the IETF said, "Well, we have a Memorandum of Understanding with ICANN and in this Memorandum of Understanding, ICANN's IANA Department manages all the registries for protocols for us. So why don't we ask you to manage the Time Zone Database as part of this Memorandum of Understanding?"

So we're working on this agreement to do such a thing when the two volunteers that had been managing the Time Zone Database got sued. There was a legal suit brought against them and since it was a hobby, they didn't have anyone to defend them. So the IETF asked us if we could immediately pick up the Time Zone Database while we worked out all the agreements later and we agreed to do this as a service to the community and we now have an RFC that will be published shortly from the IETF saying that they've asked us to do this on their behalf.

There's a happy ending to the story other than the Time Zone Database continues to be offered – is that the organization that brought the legal suit against the volunteers withdrew it. They just withdrew it from the courts about two or three weeks ago, so it's a fairly recent event that there was a happy ending for them and there's a happy ending for the Time Zone Database – it has a home.

Another activity that the IANA Department's been involved in – we don't have the lead on this but we participate in it because it has technical implications for the domain name system – and that's the IDN Internationalized Domain Names Variant Issues Project. And there are six Variant Project Teams that are made up of community members and lead by individuals from the various geographic regions where there are different scripts other than the Latin script – for instance, Cyrillic, Chinese, there's an Indian script called Devanagari – I'm sorry; I just butchered that; I didn't mean to.

These six teams have been meeting and they're presenting a report this week about their understanding and the issues that surround IDN variants. Does everyone know what I mean when I mean IDN variants? Raise your hand if you know. I'll just briefly say… IDN variants are when you'll have – like say in Chinese – you may have two characters that look totally differently but their Unicode – the underlying code that's read by the DNS – is exactly the same. So they're a variant on each other and so it can confuse the Domain Name System or the user who thinks they're going to two different places and they're really going to one.

Or you could have something that looks exactly the same in the script but has different Unicode. So those are considered variants, so this issue is as we introduce internationalized domain names and certain scripts, how do you make sure that the user doesn't get confused and doesn't end up in the wrong place and how do you make sure that the Domain Name System doesn't have replication. So that's what the variant's all about. It's quite interesting and very specialized to linguistics and technology and I'm not an expert here, but I know that it's a difficult situation.

The next slide is basically some pointers to web pages if you're interested in learning more about variant issues and like I said, there will be a public presentation about those reports at this ICANN meeting.

And finally, just a few notes on statistics. So what I have in front of you is a map of where the country code top level domains have deployed DNSsec. So this is just graphically representing it instead of putting a big list out there. But at the bottom of the page, there's a URL on the bottom of the slide deck so that if you wanted to go to that URL, you could bring up and you could click on the map and see which country code top level domains have deployed DNSsec.

And if we move to the next slide, this is about IP addressing and IPv6. I'm sure you're all well aware that IPv6 is the future and we need the millions and billions of addresses that that offers us so that we can have economic growth and growth of services to all of us. This is just the IANA website's percentage of traffic that we get that's IPv6 and it starts in January and goes through December of 2011.

And as you can see, we used to get a little bit more queries. I don't know why it's kind of slowed down. It's kind of become flat. But we were guessing – we don't really know – that the early part of the year was in preparation for the IPv6 Day that was sponsored by ISOC and Google and Facebook and many, many other vendors. And we think people were testing and getting ready for IPv6 Day. And after they had IPv6 Day and proved that it didn't crash and burn the network, that then they stopped using it and went back to their old ways. But we just track the amount of traffic that we have for IPv6 traffic on the IANA website.

And then on this last slide, I have on the left column in red a link that will take you to a website where we collect a lot of statistics. I know you need an eye chart to see the little bits in blue, but the type of data that you can find are information on various top level domains; you can get information on BGP peering between DNS servers; you can get some of the data on the regional registries and their allocation of addresses.

That's just a sampling, but if you're interested in statistics of how the network's working from an ICANN perspective, we've put this page together and you're welcome to look at that. And finally, that's all I have to say about what we've been doing lately and I'm happy to take any questions if you have any.

Jose Arcé: Thank you very much. The floor is open for questions. Javier, you have the floor.

Johnny Laureano: My name is Johnny Laureano. I have a question. We assume that from the point of view of a user, internet is a resource. This resource, one way or the other, is related to the number of IPs that are generated or have been generated through IPv4. And of course, there is a limited resource. This is why we are migrated into IPv6.

Elise Gerich: I'm sorry. My headset was staticky. If you don't mind repeating your question. I was having difficulty. Thank you.

Johnny Laureano: Internet, from the point of view of end users, and for many people, it is a limited resource. That limitation that from my point of view was related to the number of IPs available under IPv4, when we say that that resource has multiplied millions of times. So will there be any influence that higher availability of IPs will have any influence in relation to cost, accessibility, number of domains? Can you please tell me something in that respect?

Elise Gerich: So let me try and repeat the question to make sure I understood it. So what you're saying is you felt that the limitation of the growth of internet was because of the limitation in the number of IP addresses available. And now since I've

mentioned IPv6, you're asking if that will somehow change the availability of internet worldwide and if it'll change the cost associated.

Johnny Laureano: Will there be any influence? This is what I'm asking. Will IPv6 influence on the cost? But from the perspective of the end user, please.

Elise Gerich: Yes, from the perspective of the end user cost. There will be probably equipment that end users have today that will only be able to support IPv4 addresses. However, if you look around the room, most of your laptops already support IPv4 and IPv6. Most of your mobile phones support IPv4 and IPv6.

However, if you have an at-home router – one of those small little routers that most of us put in our houses, or maybe not everybody, but some people do – many of those only support IPv4. So there are lots of different parts of the system that have to support both v4 and v6 but pretty much most of the network providers have already upgraded their equipment and the carriers have upgraded their equipment to support both IPv4 and IPv6 so that cost shouldn't come back to the end user. They've already invested in that.

The mobile phones and the mobile base stations – they still are having a variety of capabilities, and so there's costs that are associated there that may come back to us as end users because we're mobile phone users. They'll have to recover their costs somehow. And also other costs that might be associated for the end user would… well, like I said, the home routers and if your computer's old, you may have to upgrade. But other than that, the cost should not be very much different. It should have less impact on the end user cost-wise, from my opinion. I don't know – maybe there's someone else in the room that has a different approach. Thank you.

Jose Arcé: Sintra and then Eduardo, so that's the order.

Sintra Sucanan: I have two questions. The first is with regard to your taking back of IPv4 which has been unused into your pool. IPv4 addresses have been traded lately and a monetary value has been put on them. What safeguards have you put in place or is in place to prevent that, if any?

And my second question is with regard to your last statement that many companies have introduced a double stack which is IPv4, IPv6, but there are also many other companies that haven't. So as well, what policies are put in place that show that the double stack is in place? What incentives, if any, or what – I would say - what disincentives to not double stacking has been put in place? Thank you.

Elise Gerich: Okay, so there are two questions and I remember the last one first, so I may have to ask you the first one again. But the last one was - what are the incentives or the disincentives of dual stack – having IPv4 and IPv6 on your equipment – is that right?

Sintra Sucanan: I was asking for companies that have not dual stack, if there are any disincentives put in place to penalize them for not double stacking. Thank you. Sorry.

Elise Gerich: I don't know if there are formal disincentives but in many countries there are incentives to add IPv6 to your equipment. For instance, in Japan, gosh, many years ago, they had a national program and you couldn't sell into certain markets; you couldn't sell your equipment if you didn't already have IPv6 on your equipment. The U.S. Government has done that – you have to have IPv6 capable equipment in order to sell into the U.S. Government.

I know when we had our meeting in Senegal, they were just coming out with a program where the government was encouraging companies to do IPv6 and there were incentives to encourage them in that direction. So the disincentive is if you don't do it, you can't sell into certain markets within your own countries, perhaps, based on your national laws.

Other disincentives are that it's a little like, let's see, buggy whips, when the cars came along. There used to be a big market for buggy whips when you had carriages and horses, but as soon as cars came along, nobody could sell their buggy whips anymore because they wanted a car.

So you could very well find yourself locked out of a market and see the growth of your company disadvantaged because there is a finite number of IPv4. So once your company is unable to sell to someone who can get IPv4 and the only thing you can sell is an IPv4-capable piece of equipment, that's a disincentive for your business model, I would think. I don't know if I've answered your question at all, but… And if you could just repeat the other one.

Sintra Sucanan: Any mechanisms to avoid the monetization about IPv4 addresses.

Elise Gerich: Within ICANN and IANA we don't set any policies that would promote or, I guess, prohibit that. However, the regional internet registries are where all the policies are set regionally for IP addresses because that's where the IP address allocation happens to companies and end users. And they have put in place some policies within each of the individual regions like LACNIC has some policies about how to deal with IPv4 transfers and also APNIC and ARIN and AfriNIC and RIPE have policies similar to that.

They're not exactly the same in each of the regions, but those policies are to encourage transfers that are not necessarily monetized. But I don't know that there's any way to, I guess, police the black market – I'll call it that – but maybe you've had more information on it than I do. But the policies are driven out of

the regional internet registries such as LACNIC, AfriNIC, APNIC, RIPE and ARIN.

Jose Arcé: Eduardo, last question please because we're running short of time.

Eduardo Diaz: I'm curious about what was the lawsuit that those two people volunteers, I mean why they were sued for.

Elise Gerich: Okay, I'll repeat the question you were asking about the Time Zone Database lawsuit and why they were sued. So there was a company that publishes a book – it's actually an astrology book – and they had bought the rights to another table that had some time and date information to build astrological tables and they felt that they had a copyright on this data that was from – I can't remember the exact year, but it's like 1921 or something like that.

And so they were suing saying that the Time Zone Database also used the same data that was copyrighted by this book. And so therefore they felt the Time Zone Database was illegally using their copyright and that therefore they should cease and desist, and then they withdrew the suit. Since there are no more questions, I want to thank you very much for your attention. Oops.

Jose Arcé: Fatima, please, a very short question because we are running out of time.

Fatima Cambronero: Thank you, Jose. It will be in Spanish. It's a short question, but I don't know about the answer – whether it be short or not. What can you tell us about the renewal of the IANA contract, the IANA agreement, and the requirements of an NTIA?

Elise Gerich: I was so hoping we would dodge this question. [laughs] So basically there's only three things I can tell you and most of them you know. So basically you know that the Department of Commerce has withdrawn the RFP that it had posted; the Department of Commerce has offered us a six-month extension to September 30 of 2012 which we mutually agreed to accept and they have offered us the opportunity to get a debriefing. Other than that, there's no more information that I even have to share. So I know that you all are probably as curious as I am. Thank you.

Jose Arcé: Thank you very much, Elise. Now I will introduce our second speaker. First of all, thank you very much, Seth, for being here. Seth Reiss is a member of the WHOIS Review Team and is the At-Large Representative on that team. So, Seth, you have the floor.

Seth Reiss: Thank you. Again, I'll apologize also for not speaking Spanish. I know it's much easier when you can listen to a presentation in your native tongue, but I'll do my best to speak clearly and slowly. I was actually drafted into the WHOIS Review Team mid-term. My predecessor was not able to complete his work, so I joined in September of 2011. The WHOIS Review Team had already completed some of their work. I think I'm fortunate to have been able to participate in the more fun part of the Review Team. There was an awful lot of work conducted and we issued a draft report this past, I think, December.

Our draft report was published December 5 and it's available for comment through March 18, so through the end of this meeting and a few days thereafter. It's approximately 100 pages plus a number of appendices. I think it's clear and easy reading but it's rather voluminous and the Review Team hopes to have a final report by the end of next month.

The reason for the Review Team is that there was a contractual agreement signed between the U.S. Department of Commerce and ICANN called an Affirmation of Commitments and this Affirmation of Commitments included the requirement of four Review Teams.

One Review Team was the Transparency Review Team and they have completed their work. Our Review Team, the WHOIS Review Team, is the second Review Team to be constituted and will be the second to complete their work and then there's two others.

With respect to the WHOIS Review Team, the mandate is that we are to be convened within one year of the Affirmation of Commitments which we were, and the WHOIS Review Team is to be reconvened every three years thereafter. So we're the first of a series of Review Teams.

We'll just jump into our findings. Basically the mandate was that we were to assess how well the WHOIS policy of ICANN was promoting accurate WHOIS data; promoting the interests of law enforcement and promoting consumer trust within the confines of the law. And that was our mandate and that's what we tried to do. We have a series of, I think, eight findings and 20 recommendations and I'll go quickly through these findings and recommendations.

The first finding was that we couldn't find any clear WHOIS policy. The Affirmation of Commitments referred to a specific policy, but we didn't see one anywhere in one place. And so our first recommendation is there should be one place in which there is a clear WHOIS policy so that everybody can get guidance from that one place. And we found evidence of WHOIS policy in the RAA. There are specific provisions in the RAA that reference WHOIS regulations, WHOIS policy; there is GNSO Consensus policies and there is other evidence but they're scattered. And so if one is looking to find out what is the WHOIS policy, one has to look in a variety of different places and that doesn't serve the interests of ICANN.

Second finding is that we questioned whether the WHOIS Data Reminder Policy – also referred to as the WDRP – is effective in what it was intended to do,

whether it should revised or maybe even omitted. There was a lot of anecdotal evidence. By the way, the WDRP was a result of GNSO Consensus Policy and it requires registrars to send out annual emails to registrants asking them to verify their WHOIS data. There's a lot of anecdotal evidence that registrants have no idea why they're getting this email, don't trust the email, don't check their WHOIS data and there's no metrics, no studies that would demonstrate that the WDRP is effective for what it was intended to do. So the recommendation here is that we should revisit it, look and see if it's doing what it's supposed to do, look and see if there's a better way to accomplish the goal of higher accuracy and authenticity of WHOIS data.

The third finding was that WHOIS should be a strategic priority for ICANN. In the information in our investigation, the information that we were able to obtain, it appeared that ICANN was not making WHOIS a high priority and the message from the Affirmation of Commitments is that it should be. I think most of us in the group and perhaps most of us in ICANN agree that it should be.

We found that ICANN wasn't allocating sufficient resources, compliance wasn't given sufficient resources – there was just not enough emphasis on it. And in particular we were recommending that additional resources be devoted, but also that a senior representative ICANN should be tasked with the responsibility for WHOIS. Right now the responsibility for WHOIS again, is disbursed among a number of people and there is no high level executive where the buck stops. So the recommendation coming out of finding three is that WHOIS needs to be a higher priority and additional resources need to be delegated to WHOIS and a high level executive needs to be tasked with the responsibility of WHOIS.

We found that WHOIS needs to be a cross-cultural, a cross-community issue; it's not sufficient that only the GSO is the constituency studying this issue. It needs to include the interests and views of law enforcement and industries around law enforcement and that consumers need to be made aware of WHOIS and its availability.

One thing that we did do that was interesting is we commissioned a consumer study. They studied some 1,200 internet users from seven or eight different countries. And the result of that study was that a great majority of internet users, including those that owned domain names, were not aware of WHOIS, were not aware that their registration data was publicly available and could not use WHOIS. So although the insiders – law enforcement and most of us here – are aware of WHOIS and understand how to use it, most of the internet users do not.

I think I missed something; maybe I didn't. Here we go. Okay, so the next area of findings are data accuracy, including the ability to contact people. Studies that have been done over the last few years, including something called a [NORC] Study showed that as much as 20-some percent of registrants were not contactable using WHOIS data. In other words, a very high percentage of WHOIS data is inaccurate or not authentic and that doesn't include the proxy and privacy registrations. So if you were to include those in, the percentage would even be higher.

I think the group felt and I think everybody agreed that this is not an acceptable percentage of inaccurate data; it hinders law enforcement; it hinders those seeking to address their legal rights, as for example intellectual property rights and that the accuracy of WHOIS data needs to be substantially improved.

We somewhat arbitrarily grabbed for benchmarks to indicate what we thought would be the minimum improvement that should be expected in the next several years and so we arbitrarily in our recommendation suggested that there should be a 50% improvement in WHOIS accuracy over the next year and 50% in the year after that. We've heard already from the community that some people feel that that is not even enough, but we thought it was an appropriate amount as a start.

We are also recommending that there be further studies to show whether the accuracy is improving over time and that the studies should have a certain consistency. What we found in the historical studies is they were each done on

different bases, but they're hard to compare data from one study to the other. But we're recommending annual studies going forward that are done on a consistent basis so that the improvement is really measurable and what we're measuring is meaningful.

And by the way, the inaccurate data ranges from nonsense data – for example, people who just put the letter "A" in each data slot – to data that is where the phone number and the address contradict each other. And some inaccurate data may be the result of transliteration of internationalized information. So not all the inaccurate data is intentional; some of it is; some of it is the result of other processes.

One big area in data accuracy is privacy and proxy services. What the team found is that the industry has leapt forward to fill the need for proxy an privacy services and the ICANN rules or the RAA provisions haven't kept up with the emergence of these services. There was a lot of discussion and debate in this area. We appreciated that there are valid privacy interests that need to be served and that there are countries with laws that have special data protection laws and that ICANN needs to be sensitive to the privacy laws that bind the various registrars and registrants.

So we made a series of recommendations as to how privacy and proxy should be regulated. This slide shows we initially and in our draft report we treat privacy and proxy differently and privacy is a situation where the WHOIS record has the person's real name but their contact information is obscured. A proxy service is one in which the name of the registrant is not the beneficial user, but the name of the proxy service. And a legitimate use of a proxy might be where a company is coming out with a new movie and wants to register the name of the movie but it would be economically detrimental for people to discover the relationship between the movie name and the movie producer in advance of the movie's release. So a trade secret type of situation.

So we treated proxy and privacy services separately because we felt they were addressing different needs in the community and many suggested that the

privacy service should be limited to individuals and not available to commercial users. But in the end, in the comments we were getting back, we found that the community was not treating proxy and privacy differently, that they were treating them similarly and so I think our revised report will also treat them separately. I'm sorry – will also treat them similarly.

Let's jump to our recommendations for privacy/proxy. So this is an example recommendation for a privacy service, but as I said, even though the proxy recommendations look so much different, we expect that the revised and final report will treat them similarly. And what I think you'll see in the final report is that we're recommending that proxy and privacy be regulated, that the proxy and privacy service… the WHOIS data must have full contact information for the service. It may or may not have the real name of the registrant.

The proxy/privacy services available for maintaining accurate information for the real registrant that they need to audit that information and check it periodically; that there needs to be a standardized relay and reveal process when law enforcement and legal processes need to get at that information; there needs to be a dedicated abuse point of contact – somebody who's available, I would presume regularly – maybe 24/7 – to respond to legitimate requests for the identity of the registrant. And then I think we're recommending that these requirements, these protections be made enforceable probably through an RAA amendment.

So going on to finding 17, as I explained in our consumer study, we found that most consumers were unaware of what WHOIS is and those that were made aware of it had a hard time using it. Two of the largest registries - .com and I believe .net – have a thin WHOIS. What that means is that you can't get full registrant data. By looking to the registry, you have to find the registrar and as we know, there's hundreds of registrars in the .com and .net domain name space.

It's often very difficult to find the right registrar who has the full what they call thick WHOIS data. A thin WHOIS data is not very useful – sometimes it has only a name; sometimes only the registrar information. In our consumer study,

as I said, most of the consumers weren't aware of WHOIS. When you told them what WHOIS is, told them to go find the registrant data through WHOIS, many of them did not succeed. We also – something that you probably all know – that the WHOIS data pages can also be very confusing. There's a lot of text that's not helpful. Sometimes there's advertisements jumping around.

So we came up with a recommendation to address this problem. The recommendation is that ICANN should develop an interface – a central interface which makes available all gTLD WHOIS information. Now we need to be clear cause some of the comments we got back on this recommendation 17 indicated a misunderstanding. We're not suggesting that the data be moved; we're not suggesting that ICANN hold any of the WHOIS data because those things would be operationally difficult and would also implicate data protection laws that would frown on the movement of data.

What we're suggesting is that there be an interface created that basically allows you to click through to the relevant webpage that holds the data. So as explained in the thick/thin model, there's hundreds of registrars that hold WHOIS data for the .com registry. So instead of having to hunt around and figure out where it is, this interface would just take you to it.

We believe it's feasible. There was some discussion on whether it's technically realistic and so far, I believe the conclusions are that it is and that it wouldn't be a difficult thing. We think this would go a long way to helping both the professionals like law enforcement and consumers to get to the relevant data easily.

The last area of recommendations is IDNs. We realize that the current WHOIS protocol does not address the IDN issues. All the information is available in ascii. Information that's originally in a foreign script has to be transliterated and the transliteration often can be done differently so we get different data - ascii data, depending on who's doing the transliterations.

So we made a series of recommendations to improve this problem. There are technical challenges; there's a discussion in SSAC 051 that's been discussed at

this meeting about a replacement WHOIS protocol that may facilitate the searchability of WHOIS IDNs and foreign addressing.

That pretty much wraps up our recommendations. I went through a few very quickly but I think I touched on all of them to a certain degree. There's still time for feedback. ALAC has a WHOIS webpage and ALAC did make comments through that webpage, but hasn't made a formal comment to the WHOIS Review Team webpage. You're all welcome to comment before the 18th and we'll try to take all the comments… we'll give all the comments close attention. Thank you and I'm available for any questions.

Jose Arcé: Thank you, Seth. The floor is open. Sintra?

Sintra Sucanan: Thank you, Jose. Seth, I have two questions. The first is that as far as I'm aware, ALAC has yet to vote on the comments, their comments on the WHOIS to be passed to you. But as far as I know, Carlton Samuels has been working closely with you on this and I don't know if you would recommend him as a point of contact in LACRALO on any queries or if you would… if there's any other person necessary.

Seth Reiss: I think both Carlton and I are points of contact. Lutz is also a member of the Review Team. He couldn't make it to this meeting but so I think any three of us would be excellent points of contact for questions or if you want to just share your comments privately, I think we would all bring the comments back.

I think my only comment is that there is a comments page – I think it's up there on the screen – if you go to the page where the draft report is, you can comment directly there and that's where we're directing our comments. Carlton did make comments quite early on and I do have them, but they weren't posted to that page. They were posted because At Large has its own WHOIS page so it's

posted there. I've already brought them to the intention of the team and I'll make sure that they're considered. Does that answer your question?

Sintra Sucanan: And secondly, there is also a WHOIS Survey Drafting Team.

Seth Reiss: I'm sorry, there is…?

Sintra Sucanan: There is also a WHOIS Survey Drafting Team.

Seth Reiss: WHOIS Review…

Sintra Sucanan: Survey Drafting Team in… WHOIS Survey Drafting Team. I actually wanted to know what's the relationship of that drafting team's work with your report. Not in ALAC; this is I think…

Seth Reiss: Okay, what I've been discussing – and maybe I'm confused; I apologize – what I've been discussing is the WHOIS Review Team draft report. And the WHOIS Review Team came out of the Affirmation of Commitments. So I'm not aware of another WHOIS Review…

Sintra Sucanan: WHOIS Review Survey Drafting Team. So there's a survey that's supposed to go out.

Seth Reiss: Okay, I'm not sure. I know that there is a number of WHOIS surveys going on right now. The GNSO has commissioned a number. The first one is going to be released in about a month; they deal with accuracy; they deal with what's going on with WHOIS privacy and proxy. So there may be a survey… But this is not At Large; it's outside of At Large. I'm sorry; I don't know but I can try and find out for you.

Jose Arcé: The last question from Marcelo please.

Marcelo Telez: Seth, good afternoon. Is there any relationship between the security forces and the law enforcement agencies with different working teams of WHOIS? And if that is not the case, how can a relationship be established to deal with certain situations in order to fight cyber crime?

Seth Reiss: The question is – is there a relationship between law enforcement and the WHOIS or the WHOIS Review Team – is that correct? Our Review Team did have members of law enforcement on our team. So one thing I didn't mention was how our team was constituted.

Our team was constituted from members of various constituencies like the Business Constituency, At Large, GAC had appointees. There were also independent experts from law enforcement and from technical. We had a representative from the English cyber crime unit who was – Sharon Lemon – she was very instrumental; she wasn't able to come to this meeting. So we did have input from law enforcement.

Outside of that, I can tell you tell you that their law enforcement is providing input on the RAA Amendments Working Group. I understand that they're making recommendations for RAA Amendments which may include amendments to WHOIS requirements. Beyond that I don't think I have an

answer to your question. If in the recommendation to have a high level executive be responsible for WHOIS in ICANN, perhaps that person can be available for feedback from law enforcement. That might be a good idea. Does that answer your question?

Jose Arcé: While we wait for the next speaker, Johnny, do you have a question?

Johnny Laureano: Yes, I do. I think the presentation was very interesting, so thank you very much. But, is there any possibility of considering my view because fine them registrars, those that have a relationship with the larger suppliers and Network Solutions. They received in that transaction, I mean, they received less than half a dollar, perhaps 30 cents in each .com domain that is registered.

These sellers of .com domains should have or have a very low incentive to register data like that. Perhaps these end registrars that exist all around the world – hundreds of thousands of them – those that actually transfer the sale to Network Solutions or the larger registrars around the world – perhaps there should be some kind of regulation on that side of the resale because this is what it is – they are reselling.

So Network Solutions and (inaudible) are not taking the data. The data is taken by the end registrar, so perhaps if the relationship is clear, there would be much better possibility of having all the data filled in. If there is an interface so as to be useful to formalize the relationship among these resellers, perhaps there may be better data in the WHOIS. Can you say something in that respect please?

Seth Reiss: I think we have heard comments that one reason the data is so poor is that there's no financial incentive for the registrars to do audits and check the data. I think there's some truth to that. We have heard a lot from registrars or the more responsible registrars that they do take WHOIS data very seriously. I think that

one avenue to increase data accuracy in situations that you're talking about where a very low cost registrar does very little to insure data accuracy is to beef up the RAA provisions.

There's been a lot of discussion that enforcement is hampered because the RAA provisions do not have sufficient penalties for registrars who don't take the WHOIS data responsibility seriously. So let me know if I answered your question. Okay, thanks.

Jose Arcé: Thank you very much, Seth. Now our next speaker, Ernesto Bojorquez. Ernesto is the Commercial Director of NIC Mexico, so thank you very much, Ernesto, for being here.

Ernesto Bojorquez: Good afternoon everybody. Can you hear me? Okay, thank you, Francisco. Thank you, all of you for your invitation. I'm here today to share with you our ideas of the internet-based domain system. I will speak specifically of Mexico and then I will talk briefly about Latin America and the Caribbean.

So first let's talk about the context of the market; the registration process; the accountability of the registries of TLDs; the rules applied on the registration; the cost of registry and some current challenges of STLDs.

Let's start with the context of the market. This is internet penetration in the Latin-American area and here you can see that the highest penetration within Latin-American countries is in Chile – 58% - but in general the penetration is low, that is, cannot be compared with the penetration in the largest or most developed market. That would in turn explain some other things.

In general the global penetration of Latin America is 37% of internet and we are speaking about over 200 million users of internet, so we may see that there is more market to be generated in the future so that the base of growth may be

faster and this shows lots of opportunities to take better advantage of the internet.

With respect to the domain market in Latin America, we have in this region 9% approximately of local population. There is no registrars sorry, and there's no registry of gTLDs in this region – all of them are outside this region. We have less than 1.5% of total generic names; approximately 1.8 million and within a total of 115 million. So less than 1.5 million of accredited registrars of ICANN, we have 12 where there are around 900 registrars – accredited registrars around the world, so this also shows and give evidence on some of the things.

With respect to the territorial termination of ccTLDs, we have 8% of the registrar domains – more than 6 million over a total of 85 million – 2% of the secondary market of domains. According to [CDO] data in Mexico we have one million names and less than 70% of them have a webpage.

Well, the registration process – with respect to this process, there are three major entities that take part in this process. Now you will see the image. The first one is the registrant – I wrote down the English version. Excuse me for a second. Well, let's work with this. Let's wait for a second to see if we can solve it; otherwise, we will find a way out. I think now it's on the screen. We'll draw three institutions or three bodies that take apart in the registration phase.

First the registrant – the person that is willing to register it so it would register the webpage. An accredited registrar for genetic top level domains and through a reseller or an accredited registrar (inaudible) on the ccTLD and then the ccTLD institutions and finally we have the registry. The registry is the one that operates the ccTLD registry. So these three bodies are involved.

In the specific case of Mexico, the registrars are accredited by the ccTLD, so you don't need to be an accredited registrar or a registrar accredited by ICANN to sell a domain. We have 220 accredited registrars for .mx and they are working with the ccTLD. So, together with the consultation model, you can see over here – I don't know if you can see it really because it's so small in the

screen – that first you have the registrant – the ones that give the domain – then you have the registrar finally, the database of the registry.

So once the registration is over, that information is replicated and goes to the DNS servers that are those at the top right and it's replicated at the various servers who have the copies of the DNS servers that are held by the registry around the world.

And finally when any of us is trying to look for information related to that domain name, that query travels over the internet and reaches one of those DNS servers and finds the information that had been registered before. This looks simple that in all this process there is a great responsibility in ICANN' ability when we mention among the top level responsibilities of the ccTLD is to define the policies, the policies that will govern the registration and management of domains, define and implement these resolution mechanisms to finally operate the database, the system, the DNS and the marketing of domains. So these are the core activities of a registry.

Somehow these responsibilities are translated into the ccTLD being obliged to serve the local community where it resides or it is established as well as the global community. The global community particularly when the queries are posted in the internet or whether registries from outside territories are authorized or are allowed, the registry has to provide the reliable service. So the structure of the registry becomes important in this case in a technological aspect and regarding its operations, policies. So depending on how well the system performs, the quality received by all stakeholders in that registry would be impacted.

Then it has to provide the resources are sufficient to maintain this service in a sustainable fashion so that a technological infrastructure and the operating structure is robust so as to provide this service constantly and seamlessly.

There is another interesting point in the management of names that is related to the economy of a scale. There are significant differences among the various economy subscales that may be reached depending on the characteristics of the

operation. This is why there is different prices. You have a price for rate; for one ccTLD; another rate for another ccTLD and another rate for gTLDs.

Well, some of the registration rules – how many names can be registered? Those ccTLDs have no limitations in this respect. Some of them used to have one that they have been eliminated. In the case of Argentina, for instance, within the region, they established 200 names as a maximum so as not to have any abuse.

But I may register as many names as I want, but for how long? In general, for a year and then you may renew it. Some of them have registration for two years and then you renew it from some other two-year terms. But most of us have a coverage or certain period where you can keep a domain. It may be five years in some cases and 10 years in some other cases.

What are the words or strings that may be used? Well, liberalization is still on that in general you may register any name; you may use numbers, letters of the Latin alphabet and the dash. Perhaps there is some limitations with the strings or some registries have that limitation – maybe a technical limitation or perhaps another type of limitation so as to avoid problems with content or something in that respect.

At what levels in the string of the domain names you may register the name? Well, .com.cctld; .net.cctld; .org.cctld. Almost all ccTLDs at the very beginning replicated the extensions of the generic domains and then put it below their ccTLDs. This has been changed by some ccTLDs so now the registry is open in the case of Costa Rica, Peru, Mexico and Columbia. Some others such as Chile and Spain, from the very beginning allowed for a registration under the ccTLD.

Some other rules – the registration was limited based on the origin of the registrants so they ask for certain documents or identifiers, unique in the case of Mexico was the Federal Registry of Taxpayers. In some other cases, I think in Chile was the same and there were some others that had no restriction at all, so anybody could register the domain.

With respect to their relationship with the domain, we have owners of trademarks, owners of some other rights and without restriction. On the legal nature of the registrant, there were some limitations in that respect, some registries were only allowed for legal persons; some others for physical persons or with no restrictions.

So to conclude, over time, most of ccTLDs have established policies that are more open, more liberal so that once we confirm that there is no significant risk for a ccTLD, restrictions are lifted or there is a mechanism so as to control those potential problems or risks.

This is a chart that has been prepared by [NORID] I think and so from right to left – from left to right – sorry – you can see how they have become more open – registries are more open. The horizontal axis shows the numbers of names that could be registered from no limitation to the right to domain names where the limitation on the right and from bottom to up with no specific requirement and with strict requirements. So here you can see how ccTLDs have moved in the matrix to the lower sized, more liberal in terms of names that may registered and the number.

Regarding the cost of the registry, I know that this is quite a comprehensive subject and quite interesting for many of you. Some ccTLDs manage registrars and resellers and they have the possibility of offering the name and the rate they consider appropriate and they offer it to the final user and it comes in combination in the same package with some other services. They speak about web hosting with the domain name and so there is diversity of rates, discounts, etc. The average price of this ccTLDs in our region is approximately $80 U.S. per year and includes premium services of some ccTLDs from $100 U.S. to $1,000 U.S.

If we consider the rights to residents for each ccTLD, those that are for more than one rate, we have an average price or an average rate of $16 per year and these are the countries that have been considered to calculate that average.

With respect to the current challenges that we ccTLDs are facing are the implementation of privacy laws. In some cases, like in our country, Mexico, these privacy policies are becoming more strict and so we have to find a way to combine it with services that are already there like the WHOIS service.

WHOIS is a valid database and we have to find a way now to combine it because this is a universal practice. This is a challenge we are looking to comply with it as much as possible and try to be as practical as possible in terms of implementation so that the registrant will have no problem.

Another challenge is competition. Right now the managers of generic domains or the generic domains themselves have a business model that is more commercial and aggressive than it used to be and now there is new programs or we have more genetic top level domain names and the number may change significantly. So the conditions will be different for the ccTLD and the market as a whole will change in terms of security.

Security has always been a challenge and it still is a challenge so we suffer from attacks that requires more infrastructure, updated systems and to be aware so as to protect a larger number of clients. These are the challenges; this is the end of my presentation. Thank you very much. I wanted to be as brief as possible so I would like to open the discussion. I don't know whether you have questions or comments or whatever. Thank you very much.

Javier Chandia: I'm Javier Chandia from Internauta Chile. I would like to know whether you have any statistics with regard to the domain names. For instance in this country, how many domain names they have for their own countries and what is the cost?

Ernesto Bojorquez: We do have statistics. For instance, in Argentina there's no charge for that and some other countries charge a certain amount, so this could prevent countries from having more domains of their own. Yes, we do have statistics. Some of

the ccTLDs publish their statistics – that is the case of Mexico. I don't have them here but there are statistics. I have the ones that are publicly available. I think there are some pages or at least two pages where you could find a consolidation of most of those statistics that you're looking for.

If you want, as we leave the room, I can give you those links so that you could look for that information there. Now, based on your question, we can wonder whether these actions can block the number of registries that exist. Obviously there's many costs and delays but on the other hand, it is necessary to understand the context in which registries operate. A registry with a small number of names and with a potential market will find it difficult to grow in an indefinite manner in terms of number of registered domain names.

So it is not always possible after a certain level to reduce the price, to lower the price or at least all at once. So there is a sort of combination between market price and market size that needs to be found.

Jose Arcé: I see Sergio raising his hand and Johnny and then Umberto.

Sergio Salinas Porto: Hello, Ernesto. Thank you for participating in this capacity building session. I think your presence here is very important. On behalf of my colleagues I would like to thank you for that. I still have some questions. We are talking constantly about new gTLDs in ICANN so I would like to know your views of the Mexican market with the entrance of the new gTLDs. So what is your opinion about that?

Ernesto Bojorquez: In general and obviously in particular in Mexico, we believe that we will be no exception and the market will undergo many changes, especially in terms of the total number of registry names. We don't expect to match replacement, so that is that a name that was already registered will be registered now. Probably what

we should expect is an addition of names to your domain name portfolio. This is what we expect to see in the market.

We hope that with the implementation of the new gTLDs, we work together with the territory domain names, we can help in terms of education and information given to you so that we can have a better informed audience because we expect now greater investment in promotion and education of users as to how to make all the necessary transactions related to a name.

Jose Arcé: Johnny please.

Johnny Laureano: Ernesto, thank you for your presentation and thank you for the two answers because these help clarify some ideas and questions that I have going on in my mind. What are the criteria… do you have resellers too? We have accredited registrars so this would be resellers? Well, then you can clarify that.

Yes, I assume there should be an operational and economic relationship. This goes hand-in-hand with a question that I asked the previous speaker about an incentive policy that is realistic and functional and that allows to correct the WHOIS data. That is my first question.

The second question relates to something that I think that should happen sometime. And it has to do with the application of RFC1591. And this has to do with inspiration among the community and the governments to participate in these kinds of domains in order to facilitate access and the promotion of internet in all countries. But I'm saying this as a sort of responsibility that the administrators of the domain names have in the countries like in the case of NIC in Mexico.

So I am under the impression that the civil society that represents the interests of the internet and users and the domain users depend on the decisions of governments and administrators of registries in the countries like NIC in Mexico. Could you tell us your view about the Association of Internet Users in Mexico? How this association could participate or be involved in the design of policies for NIC in Mexico.

Ernesto Bojorquez: Well, in answer to your first question about the criteria to choose registrars or resellers, I was telling you that we have accredited registrars. The difference that we make is the following. The accredited registrar for us is the entity that has a direct relationship with us, that is fully identified the registrar has a contract with us and abides by the policies that we have.

And the reseller for us has no direct relationship with us or a business relationship with us, but participates in the name distribution chain. So those are resellers for us. That is the situation in my country.

I think that you asked a question regarding more policies or maybe more control throughout the chain. With our accredited registrar model, we expect to have the same that we have with them, that is, a scheme structured of the [fund] resellers who have clear policies and rules and who abide by those rules and enforce those rules in an attempt to guarantee that all the domain name chain has a certain level of reliability – that is our goal. That is what we seek and that is what keeps our market healthy.

In answer to your second question NIC Mexico allows the involvement of those associations or in a consultative committee. Especially the most relevant decisions are made in that committee and we refuse them together with them so we raise them in this committee, we discuss them and we get feedback. And based on that feedback and that discussion, we make the most adequate decisions.

We also participate in associations related to internet development and we also feed that information into our decision making system. In our region we have different systems. We have ccTLDs that are operated by private organizations, CcTLDs that are operated by governments or by the academic community. So all the different internet stakeholders are likely to take part in the decision making process at least by giving their opinion. And I believe that this is what ultimately makes the administration of these names more robust.

Perhaps the label of the operator is not so important or the name. Brother participation is what matters there. Umberto please?

Umberto Carascos: Good afternoon. Your presentation has been very interesting. I'm glad to see the evolution of NIC Mexico from different perspectives. First in terms of the dispute settlement policies because I remember that a few years ago you used to apply the ICANN policy and now it seems that you have your own dispute settlement policy similar to what happened in Chile at a certain point. And I think that that is what Mexico had to do.

I also admire this breakdown that you have made when you work with registrars. What is the other mechanism that you use to foster competition because, to a certain extent, this lowers prices for the domain names. So which, in your opinion, is the future step because in your presentation you said that generic TLDs are more aggressive from a commercial standpoint. So how can you make the market in ccTLDs more aggressive because ultimately, if you compare the prices of gTLDs versus ccTLDs, you will see a big gap. For instance in the case of Mexico that is a very large country as compared with Chile. In Chile we have much less population.

Ernesto Bojorquez: In Mexico promotion has been one of the main activities that we have engaged in, both promotion and education - advertising and education of users and making sure that users renew the names, look for the names. And in terms of education, our focus is to make sure that everybody understands how the system

works. I will take that call later. And on the other hand, if you don't mind, I will leave it like that. That's not a problem for me.

As I was telling you, in terms of advertising and promotion, we try to insure that an increasing number of people become aware in the ccTLD because we try to identify these as a brand, a brand that stands for something and we try to give meaning to that. Then we try to promote it and to educate people on that, to tell them how that is operated, how it is managed and we try to publicize the advantages of ccTLDs.

If you are a company, what are the benefits for you to have a presence on the internet because that is what the market looks for. They don't come to you and say, "I have just realized that I need a domain name." What they find out immediately is that they would like to have a presence on the internet in order to reach a larger market, in order to have a different or a cheaper market in a channel that is more accessible for most companies because usually these are (inaudible), so we start awakening the domain market.

Of course, fees and prices are important. There is a limit in fact, as I told you before. If these were only dependent on a price decision, it would be clear that you can bring down the price with the smallest percentage, but there is a limiting factor. If you don't have too many names or your potential market is quite small, you may be restricted as to the price that you can bring the price of your domain down to because you need to insure that you have sustained an ability of your business.

For .com.mx, we used to have $35 as a price. It used to be $70 and then $35 and you could have the registration for one year. And we have lowered the price down to $11. Why? Because we believe that that helps the market; it helps activate the market. For instance for the renewal of those same names, we lowered the price to $19, not to $11.

So what is our objective? Registration and renewal of names should be priced the same, but why do we have this difference? Because by lowering the price, we are encouraging more registration. So as the database grows, we will be able

to bring down the price. So in that way we guarantee that we will have the resources in order to have world class infrastructure and we can offer the best quality to our clients. For instance, if our structure fails, it is clear for us that ecommerce and .mx and transactions on the .com.mx domain will fail too.

Jose Arcé: Fatima, do you have a question?

Fatima Cambronero: Yes, hello. I have a question from the remote participants from Beatriz Rodriguez from Uruguay. How do we establish that WHOIS is a public source according to the Data Protection Law?

Ernesto Bojorquez: I think that this was for the previous speaker. That was a question for Seth. It says that it is for Ernesto. Well, I can answer it anyway. As I said earlier, the WHOIS databases have to do with universal practice in terms of domain names. As the Data Privacy Law or the Personal Data Protection Law becomes stronger in our country, well, we started getting concerned about the fact that there would be no clause in that law, no provision in that law that could go against the WHOIS service. Because in that case, of course we need to comply with the law, but we have something that is basic to our business operation and that is the WHOIS database.

So I believe that a universal practice it [rules]; what forces us to keep WHOIS. But what we can do is to choose what data is published. In the case of Mexico, for a number of years now, you can see the name but you can't see the registrants' phone or address. You have no access to the most sensitive data. If you have a dispute over a name, if you start a dispute, we give that to the WIPO all the information that it needs but we don't publish that data. I hope I am answering your question.

Jose Arcé: Are there any further questions about this subject? Thank you, Ernesto, for your participation. And with Ernesto's presentation, we close this Capacity Building Session for today. We thank you a lot for your participation. Thank you.

[Applause]

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