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PRAGUE – SSR Review Team Final Report
Monday, June 25, 2012 – 14:00 to 15:30
ICANN - Prague, Czech Republic

Male:	We're just about to start and this meeting is being recorded for your information.
Alejandro Pisanty:	Welcome, my name is Alejandro Pisanty. This is a session for the presentation of the Security, Stability and Resilience of the DNS Review Team Final Report to the ICANN community at-large in general. I don't know if we have remote participants at this point. There is a number of…
Male:	We've got three so far, it's Bob Roseman, Rosella Martioli and interpreter Lillian which I think is one we can see, she's waving her hand.
Alejandro Pisanty:	And we're thankful for the interpreters and we beg your forgiveness already and we know that we'll have to ask for more of that at the end of the session, as well as to the scribes now or later. So I'll repeat my name, it's Alejandro Pisanty. We're presenting the review of Security, Stability and Resiliency of the DNS. This is the final version of the

report. This report has been made public, presented to the ICANN Board, to the GAC and to ICANN staff.

As you remember, this review of how ICANN is performing on its commitment and function of enhancing the security, stability and resiliency of the DNS, which we will call SSR for brief. This review is part of the commitment made in the Affirmation of Commitments between ICANN and the US Government. It's very important in that it's also a reaffirmation and an exploration of how the multi-stakeholder mechanisms of intern-governments actually work. This is particularly important in view of the fact that it's not anymore ICANN performing against a checklist that's reviewed by the US Government, but against a number of commitments that are reviewed by the community as a whole.

The review team was established in October 2010. In its composition there are representatives of all the supporting organization and all the advisory committees of ICANN, independent experts designated and called by ICANN and by the GAC, and designated nominees of the Chair of the GAC and of ICANNS president and CEO. The terms of reference for this work were established in 2010, and the work, as I said started in December of 2010. So the review has taken place over 18 months, which is very much the time we had foreseen when we started. So in that sense, with some hitches and push and pull, but we're basically delivering this within the agreed timeframe.

A little of history of how we worked. We made a very significant decision, which is a test and an experiment in the larger view of things, which was to differ from all previous reviews, whether the AOC review

teams of the previous ICANN Bylaws reviews, in that we decided not to make requests to extend our sources to a consultancy or a pro bono consultancy. Instead we decided to perform the review with the human resources of the team itself, and those provided by the organizations were some of us work, but it was mostly personal involvement.

In this point it's also important to mention that this review is a review of how ICANN is performing in general, in the broader picture, for enhancing and preserving the SSR of the DNS, and the review is not an in-depth, technical IT security audit. That's something that we expect ICANN to perform regularly. In fact there are a number of audits and exercises, contingency planning, contingency testing exercises and so forth, which are, we don't review them. We don't perform them. We review the fact that ICANN is performing them and whether ICANN Is getting lessons learned from them and applying them.

And it's also not a review of the broader question of ICANNs stability and resiliency in the future on a higher political level. Because again, we were not mandated, nor scoped, nor was a committee the review team populated for that purpose. We worked in sub-teams. We split the work first, for our first period of work, into three teams looking at basically to simplify the definitions of the scopes of the three sub-teams. One of them was looking at the rules as they are written, the policies and rules that dictate how ICANN works in the SSR field.

A second sub-team looking at the implementation, how these rules and policies are actually put into practice. And finally, a third group looking at the contingency planning aspects, risk management, threat management and contingency planning aspects of the SSR function. I'm

very thankful for all the team members, some of them are present here. Bill Manning, Anders Rafting, David Cake, Martin Hannigan, Simon McCalla, Jeff Brueggeman, Hartmut Glaser are present here, and we are all collectively very thankful to ICANN staff, particularly Miss Alice Jansen, Mr. Olof Nordling, Patrick Jones, Denise Michel and Jeff Moss who were in very frequent contact, had enormous foresight in planning what inputs we would need and when we requested documents that were available, they were made immediately available.

When there were documents that didn't even previously exist, they would put them in place very fast in a transparent and very valuable manner. And very thankful as well to the ICANN CEO, the GAC Chair, and to the many members of the community who came through with answering interviews, providing documents and providing feedback along the process in the several cycles of feedback and information from the community.

So that first set of three sub-teams put together drafts of the document requests and so forth. And once that first cycle of drafts was achieved, we reorganized the team into a core drafting team which carried all the weight for collecting input, changing text, putting it forward for consultation and so forth, and the rest of the team which were providing more specialized inputs from their fields. We put out a draft report on March 15th of this year with recommendations and supporting text. We built it in such a way that you have findings, and opinion and conclusions on those findings and recommendations for each of the things we were recommending in the end.

The final report; that draft report of March 15th was subject to quite interesting community comments. When the comment period closed we found a way to extend it so we could get even more comments from the community. And when that was closed we absorbed all comments, most of the comments we received were incorporated in some way or another, either responded to or just absorbed into our work. And with that we got together and produced a final report which was published on June 21st and submitted to the Chair of the ICANN Board.

Here is also a point of clarification, you will see that that report has now been published and there is our request for comments, there's an open period for comments. Those comments, that community feedback will not come to the SSR RT anymore. Our work is done except for clarifications or correcting gross errors. But those comments are extremely important because they are requested now to be directed to the ICANN Board, and to what the community will be doing in that call is to tell the Board how they want the Board to act in the implementation of the recommendations of the review team.

Very briefly to describe now what's going to happen, I'm going to make a very vrief description of the report itself, and then members of the core drafting team, Simon McCalla and Jeff Brueggeman are going to describe the report in more detail. We are not going to go through all 28 recommendations one by one, we have them here ready for discussion with you in the community, but our plan is not to go on and on and on reading it.

In summary our findings are that ICANN is doing its job. There's a lot of good work being done to preserve and enhance the stability, security

and resilience of the DNS. We noticed constant action in funding the function, in hiring people, in keeping people trained, in establishing procedures, manuals and internal standards so that operations are increasing in the contribution to stability, security and resilience.

We recommended sharper definition of ICANNs perceived mission with SSR dividing it into three spheres which will be ICANNs own operations where ICANN actually has command over its human resources or ownership of the hardware and software. A second sphere which is where it has to interact with others in order to act, but these others have a strong commitment to ICANN; they have contracts like registries and registrars or they are members of a community which is influencing policy making like the GNSO, ccNSO, ASO and the various other advisory committees including the GAC.

And the third sphere, which is a wide world out there where ICANN can only have a very indirect influence like providing materials which will educate users into domain name resolution or contingency planning against the enormous number of people who accidentally or deliberately throw stuff at the DNS that may damage or impede its operation. This request for clarity and better definitions was actually found useful by ICANN staff, and ICANN staff provided those with a moving target, which we think is the nest proof that we're doing the right thing.   Because some of our recommendations were being implemented while we were still talking about writing them down and they were already being expressed in a new way to present the budget and so forth.

So we're asking ICANN to have a constantly better defined mission in SSR, constantly better defining their actions with different components of the SSR environment and to document these things more clearly. And to have for the first time a comprehensive risk management framework for the DNS. We have also a very good interaction along with the DSSA, which is a community grown edge inward, bottom-up groups set up for analyzing the threat landscape, which is a very significant component of the risk management framework. And our work has geared well also with this group. We're very thankful for the openness with which you through Mikey O'Connor present here, we're thanking everybody on that team for the excellent interaction we had.

So I'll stop there and hand it over to Simon McCalla and Jeff Brueggeman, I don't know who's going to speak first. It will be Jeff Brueggeman first.

Jeff Brueggeman: Thank you Alejandro. Just to provide a little bit more detail on the substance of the report as you outlined it, in the first section we really cover what is ICANNS remit in the area of security, stability and resiliency and we felt this was an important issue to start with because the issue of DNS security is much broader question than what is ICANNs role in promoting and enhancing the security of the DNS. So we felt that by starting with ICANNs own mission and role in that larger question would help us to come up with a more refined set of recommendations.

And we focused on a couple of aspects of that. One was, as Alejandro said, how clear is ICANN being and how well understood is it about what

ICANNs role is. And we felt that there was some opportunity to further clarify ICANNs specific role on these issues. And in fact, just a few weeks ago, ICANN has already put out for public input some community response on that question. And we felt like an important aspect of this is to make sure there is consensus and maybe perhaps a broader understanding among the community about exactly what ICANNs role is.

The second part of the question was is ICANN adhering to its role and remit. And we felt there they generally are doing that. We made some process recommendations to make sure that ICANN continues to be always thinking about that question as its conducting its business on an ongoing basis. But we generally found that what we saw was that they were operating within their remit.

So then in section two we move on to how is ICANNs implementing and operationalizing its role in the area of SSR. And as the Affirmation of Commitments notes, ICANN has an ongoing process of establishing on an annual basis its SSR framework. So we were coming into the process where that had already been initiated, and I think one of our findings as Alejandro said, is we saw evolution and improvement even during this process that was to some extent a real time interaction with some of the things that we were seeing.

A few areas that we focused on – number one, we didn't want to just create a laundry list of new things that ICANN should be doing. So we called for ICANN to take further steps to try and prioritize its work in this area and to organize it more consistently into the priority projects that are going to drive the decision. We didn't pre-judge. We made

some specific suggestions in some areas, but we did not come up with our own list of what we thought should be the priorities, but rather tried to make the process recommendation and then point to certain areas that we thought clearly should be a priority, including things like contract compliance and the new domain name program.

Then we looked at ICANNs operations and there again, I think we felt like ICANN was generally had a good committed staff in this area but felt like there was some opportunity to maybe mature the security organization by building to some established security practices. We didn't get to prescriptive in how to do that, but we felt like that was a next good step for ICANN to take operationally to manage its own security.

As we move out from that level of control out to the areas where ICANN exerts influence, I think that is where we probably got the most public comment on our recommendations. And we tried to make some refinements in the final wording to make clear that we understand that the policy development process and community input is extremely important in everything that ICANN does. But we really wanted to, to some extent, make some specific recommendations about what ICANN itself can do to help promote good security and stability and resiliency practices in that area.

So we I think added some references to make clear that we were talking about operating within those processes, but we felt like by identifying and encouraging a more consistent development of best practices on SSR issues, that could be something that is more consistently incorporated into agreements and practices throughout the broader

stakeholders within ICANN. And then finally, we looked at the community process as a whole in terms of ICANNs staffing and budget and transparency in how it operates and we made some recommendations in those areas.

I think one thing to note now that the report is finalized is one of our suggestions was ICANN should have a public dashboard that would allow the public to more easily track how the progress of the SSR framework is being implemented and I think that's something that is equally applicable to our SSR report recommendations. I think those types of mechanisms can be extremely valuable to the community to both understand and more fully participate in the process by understanding what ICANN is doing.

So again, I think we had a combination of some process recommendations, some specific areas where we thought ICANN should focus on, and then obviously acknowledging that community process is part of it. So Simon is going to talk about the risk framework part.

Simon McCalla: Thanks Jeff. So, the final section of report is probably a little bit shorter than the other two sections, but nonetheless it's extremely important. We took a look at ICANNs kind of future facing mechanisms and mechanisms for looking at threats and understanding the risk landscape. And as part of that we firstly took a look at well, what resources are available to ICANN and the community to do that. And one of the things we found was we found very much that it was really important firstly ICANN really clearly define the roles and responsibilities of this SSR stuff.

And you see this theme tie back in section one and section two but providing real clarity for what they do and what their roles are is really key to that to give people the freedom to engage in those exercises that are future facing and looking at threats. And we found that ICANN needed to make sure it fully and equally supported those activities with the right amount of resource to do that. We felt that there were areas where there was a lot of resources being put into and some that perhaps didn't have enough resource and time and money as other areas.

And we then looked at how ICANNs SSR capability had the ability to look at threats and I think we found that ICANN needed to put a little bit more process and a little bit more time thinking into how it engaged formally with threat detection and also risk management. And we called for, what we found when we looked was we just could not find a proper formal risk management framework in anything we saw with ICANN. We saw a lot of good thinking, a lot of good work and a lot of great stuff being done, but there was nowhere where it was being formalized.

And when you take a look at any large business, they'll have a risk framework, they'll have a risk document that allows them quite possibly for insurance purposes, but quite often for management of their business. And we felt this is a really key thing for ICANN to put in place and have managed by the CSO and the security team. So we called for a risk management framework and then we called for ICANN to use that risk management framework to help it make decisions in our recommendations. We felt that was extremely important.

And clearly there's a lot of good work going on with the Board Risk Working Group as well at the moment. So that ties very neatly into these activities, so hopefully these recommendations are landing on fertile ground. And then lastly we said ICANN really should make sure it's engaging in threat detection activities and understanding what's going on in the wider landscape and doing that in a formal manner. And to be clear, this is very much not ICANN trying to step into any kind of DNS Cert kind of role. But this is very much their engaging and being at the center of helping to understand risks, helping to understand threats and helping to disseminate information to the wider community in a way that suits the bottom-up stakeholder model we have.

So it's a short section, but it's a very important section at the end of the report. And I think specifically around the risk framework, that's a really key set of recommendations at the end of the report.

Alejandro Pisanty: Thank you Simon. Yes I would add that there's an interesting evolution in this last aspect, which also considers a lot of what Jeff said about community participation and input. When our work was started there was also the complaint by Rod Beckstrom, by the ICANN CEO that there was no comprehensive risk management framework. And in fact the Board move, as we started our work, the Board moved in January 2011 to remove from the SSAC from the Security and Stability Advisory Committee, to take away from them the task that had been on the Bylaws for many years for them to create the framework. And moved it to a then undefined working group of the Board.

That working group has not been established, has been populated and has started its work. We have kept in communication with them, particularly through their Chair who is Bill [Rahem] and we know that they are working, maybe not exactly within the deadlines that were foreseen originally but also not drifting very badly. So there is reason to believe that at the end of 2012 or early 2013 that framework will begin to exist. And we're recommending for this framework, of course we would all love it to be comprehensive, forward looking, bottom-up consensus, etc.

But what we're even more underlining is get the first framework you can get that reasonably squared out, get it out, start working within it and then expand it, instead of waiting forever to get the perfect fit which you will never have because it's a moving target. I will say that if you wanted a really brief takeaway from the report it would say "urgently, as soon as possible," in fact it's already happening, express the budget and planning much more clearly, make it easier for the community to participate.   And our message to the rest of the community, not to ICANN Board and ups, but to everybody else is take part in this actively.

Second, the most important, that will be the first task because that's the one that you can done immediately. The most important task is the risk framework and again, it will require intense and active, lively and smart community participation. And the third part that we think has gained a lot of consensus which we can describe is to gain clarity in budget, how the line items all come together. We don't believe, or at least I don't believe that it would be realistic to think that in the next budget cycle

every penny that's set to be for SSR will be accounted for in an explicit way. That's an invitation for actually just fudging numbers.

But we believe that going from like 40% which is accounted for explicitly at the present to 80% is possible in a few budget cycles. And ICANN, the whole community has to cooperate, it's not only ICANN, but everybody in the community had a contribution to make there. So unless there are comments; complimenting this presentation by other team members and then immediately move to questions from the audience. So David Cake, Martin Hannigan, Hartmut Glaser, Bill Manning – any additional or will we move to the…?

So then I would like to ask the community present here as well as though participating remotely for your questions and other types of input. Oh sorry, I forgot to ask Anders Rafting. And then we'll go to the community members here and remote participants.

Hartmut Glaser: Alejandro?

Alejandro Pisanty: Yes, Hartmut Glaser?

Hartmut Glaser: Only one comment that I received from members from our community, the reason that we don't mention nothing about the glitches, probably you can have an explanation because some are asking if this is our job or not and probably if we as a committee, as a review team have an official explanation that will help and support the final document.

Alejandro Pisanty: Thank you. We were almost finished with the draft report, we had the draft report ready when the gTLD application system went through what we'll all know as the TAS glitch. We did ask ourselves immediately whether it had an impact on our report, whether we were saying that the number of things are fine and dandy, others need improvement, whether this was showing anything to be seriously broken in the SSR field.

Our analysis on was ongoing at the same time as ICANNs own analysis. They had first to solve the problem and to put the system back online and then begin to do some forensics on it. So we were in conversation with ICANN, communication with ICANN. Our best conclusion is that this is not directly an SSR operations or planning issue. It's a business and systems issue. And our reference to it is actually, it's not like we are not commenting on it Hartmut, but we have included this is part of the recommendations in the foundations for the recommendation.

That in going to the new gTLD process ICANN should keep a very sharp focus on the SSR, on the security, stability and resiliency implications. Not only that they make the operations secure and have secure systems, but make sure that all these types of implications for the security, stability and resiliency of the DNS are handled properly. Yes, and I beg you to introduce yourself for the record and for the people who are listening and not seeing us.

Wolf-Ulrich Knoben: My name is Wolf-Ulrich Knoben, I'm from the GNSO Council and from the ISP community. Frankly speaking I didn't read all the reports, not yet. But I have seen the recommendations and I think they are very comprehensive. And I have only one question with regards to one specific point. All these matters security, stability is a very sensitive item. There's technical items that are affected. There's organizational operation items that are affected. And there's a human factor behind that.

So there are people coming in, going out and they have to be educated in terms that all these things are managed and done in an effective and the best way there is. So my question is how did you cover this question of human factor here in your report.

Alejandro Pisanty: Thank you. I agree with you that this is a very important factor. Human resources did acknowledge; I mean we all look at this with a similar optics, we know to bring in the lens of people, technology, process – three separate areas. We looked at it through that lens. We act in very deep detail about a number of human resource policies in ICANN related to SSR whether there is a selection process, what is taken into account for the selection process for people, especially for the SSR team. What training and manuals and practices are enforced in general, because it's not – I mean you can have the most perfect security specialists if the rest of the human resources of the organization do not engage in secure practices you're still out in the field.

That feeds our general conclusions that most of the processes that should be in place are in place. Some of them were proposing very

specific improvements or general guidelines for those improvements. You can see a trace of that for all three things, people, technology and process in the recommendation related to certifications. We are not recommending that ICANN go into every certification process that's available out there, like [ISO 27000, ITIL, COBIT] and so forth. Because A – it takes a cost; B – it takes time; and C – it's not necessarily relevant.

Some of ICANNs processes are very unique and it makes no point to sort of artificially create a certification. But other processes like software development or server management and stuff like that could be subject to certification, so we're just basically there proposing that ICANN analyze carefully what of these certification processes are relevant, engage into them with a reasonable cost benefit analysis. We're not recommending to stop operations to have everybody go get trained in [ITIL and COBIT] because that would also not make sense.

So that will give you a sense of how much in-depth we went into this. We didn't want to be very prescriptive in the report. We were not tasked, nor equipped and we wouldn't believe it will be the right kind of job to go into all the micromanaging of these things, which are changing as you mentioned. But we certainly do recommend as we speak of these things like standards and documentation that it's of enough quality that it takes into account the personnel rotation and interactions with third parties, which are so common in ICANN.

Andrew Sullivan: My name is Andrew Sullivan. So I just want to follow up on the certification issue because recommendation nine says on the one hand you should look at these certifications and sort of determine whether

they're appropriate and so on. And then you should publish a roadmap as to how you're going to implement that certification. And it seems that it's sort of pre-judging that there will be some certification that is appropriate and it ought to be applied. And I'm not entirely sure whether that's the intention or not.

But it was the one thing, because apart from that the report actually seems to me to be entirely balanced and sensible and it's just that there seems to be this leading assumption in that recommendations, so I wondered if you could say more about it.

Simon McCalla: Andrew, it's Simon McCalla. I remember when we discussed this recommendation, and this one went backwards and forwards quite a bit as you can imagine. It's an interesting one and so I think one of the things we felt with it was what we didn't want to do was be in a situation where ICANN takes a look at all of its processes and says "none of that's really appropriate and therefore we won't bother doing anything."

As an operational [CIO] myself I know that actually part of the process for planning and preparing for certification really helps you build up a culture of process and everything else and we're going through some of this ourselves at Nominet and we found it very useful in helping to build a culture around it. So the intention was not to pre-judge in any way what was or wasn't available but to say "we have a plan" and if that plan is that there is no certification whatsoever, that's appropriate for us, that's okay, made a conscious decision.   But they're not unconsciously walking into just not doing anything.

So that was the intention of the recommendation, rather than trying to pre-judge I think, to be fair.

Alejandro Pisanty: And to give you a little bit more history there because it helps clarify. We began asking for a few things, you know human resource stuff etc., that would be readily available if there had been some of these certifications, like if you had an [ITIL] or if you had [COBIT], if you had run a [Cobra or Octave for ISO 27000] you would already have a list of 80 questions which had been asked and answered. So we would just look at those documents instead of asking for them individually. So that led us to this whole issue.

We found that there has been very limited effort going towards certifications.   So we discussed this.   I think the fact that the recommendation is written this way expressed the agreed perception within the review team that going headstrong into certification processes may not be the smartest use of money, time and human resources. As I said, some of these things are very standard. If you are developing internal administrative software you would like that to go along some of these standards.

But if you are developing DNS in a box for reproducing a DL root, which is a very good contribution that we observed ICANN doing for the resilience for the DNS, well what's the certification process for that. Where do you go for that certification? Maybe for the development for the software, maybe for the training of the human resources, but you're actually going to go out on branches instead of concentrating into the

proper stuff. So that was the perception. And Bill Manning wants to say something here.

Bill Manning: Yes, so where certifications exist and make sense it helps create the regularity and formalism around a risk management framework which seems to be absent. And so instead of ICANN creating an entirely bespoke risk management framework it's helpful to reference existing other activity. And so I think that's what we were trying to bring forth here is that well where it makes sense and where it exists it helps temper the thinking in the right direction to create the kind of risk management framework that seems to be missing.

Alejandro Pisanty: I thank you for your comment that you're reading this as prescriptive or leading, it's not meant to be leading in this sense. This gives rise to another larger scope comment if you'll allow me. We are not trying to get ourselves this same job three years from now, but we felt okay what happens when this review is made again because it's mandated by the AOC. So we tried to establish a baseline and then an expectation, let's say a trend to where the organization should be going in three years. We thought it was not within our scope to say what the vision of SSR three years from now because that's for the Board and the community to work out.

But we certainly think if this review was like an audit, the next review will be much more like an audit. So it will look at whatever commitments and plan support makes based on this review and see

how much they are fulfilled. So we're not writing the plan, we're not prescribing the next audit. We did sort of lead into that. And you know the next auditor that comes in will ask to, let me characterize this, they will ask ICANN for the elevator certificates instead of going to measure whether the bearings are well-greased and the fire extinguisher is within the elevator. They will ask to see the certificates handled by proper authority.

And in this sense its advance work that ICANN could do, but always – and this will gear to another comment, that's why I'm taking this extra branch. The other point here is we're recommending ICANN to have a sharp focus on its decisions, its actions, its budgeting and planning on human resources here, therefore not necessarily going into certifications unless they actually contribute to that.

And also to make use of tools that the community can make available including a consideration for developing countries who not only have to be simple and inexpensive and so forth, but also would be a chance for example to have software developed; either purchase something that already exists or have it developed within the community in people who will actually grow and learn and become better human resources and have capacity building by participating in the project, and therefore will extend this concept of capacity building which was also a big question from the community beyond just going out and teaching stuff to actually going and work with the communities so the training stays in place and also earns honest goodwill.

Simon McCalla: Was that a hand up?

Alejandro Pisanty: I know that Olof and Alice would have told us if there were remote participant questions, but I want to ask you explicitly if there are any.

Olof Nordling: So far none, so you apparently expressed yourself perfectly clearly.

Alejandro Pisanty: Or perfectly boringly. Other participants in the room, do you have any comment? Mikey O'Connor.

Mikey O'Connor: My name is Mikey O'Connor, I'm in the ISPCP constituency in the GNSO. And one of the co-chairs of the DSSA. I was curious, one of the kind of standard things in the security world is that a lot of this stuff works better if you have a lot of support from the top, and it generally doesn't work well at all if you don't have that support. And I note with a frown on my face that we have no one from the Board here today. I'm just curious if you all are feeling any pain about that.

Simon McCalla: A couple of things I think. When we pursued, although this may not be addressing your question head on, when we worked through the recommendations and particularly as the report started to turn into something that was tangible, we spent quite a bit of time with ICANN staff; some of them are here and some of them aren't, as part of that process. And one of the key things we did was to try and make sure

that the recommendations were implementable rather than, what we deliberately didn't do was decide to make recommendations that created a lot of smoke, a lot of dust storm and took a while to settle.

And so there are recommendations that we could have made that were more spiky and perhaps more sensationalist, but actually what we tried to do was create sensible pragmatic implementable recommendations. And a lot of time we would sit down with the ICANN staff and say "can you make this happen. If this goes to final report and this lands on your desk for next year can you make it happen." And every time we'd go through that check and balance with them and they'd say "yep," "yep," "actually that one's going to be difficult if you word it like that."

So as a result I think we've ended up with a report, a set of very balanced recommendations that we know from the security staff, we know from Jeff and his team, they can go make happen. So whilst that's not tacit and explicit support from the Board, and to be fair they haven't had a chance to comment on the final report yet, we do know that the security team are looking forward to getting on with and making these happen. So I think from that perspective I take some solace that I think that there's a good chance this will happen. Sorry that's not a direct answer to your question though Mikey.

Alejandro Pisanty: I'll have a direct answer to compliment that. What Simon says is very important and the sense of responsibility with which we went about the report make it actually implementable and make it be a stretch, not just stamp and seal things that are already planned. But the report has enormous buy-in from Rod and from Rod down at the moment. It has

enormous buy-in from the first day from Steve Crocker. The first interview I had after we were established was an interview with Steve Crocker and I still have his notes on it. He is very interested in having the Board level intervention, making sure that things are going to work.

I think that the messages that we get from, the explicit messages we get from Steve Crocker and Bill Graham about the Board Working Group are they want this group to be provisional, not provisional, to be temporary; to have a time bound action so that it produces something that has to be acted upon by staff. And I met [Fadi Shihavi] a while ago after the presentation when he was alone in the corner, and he's already carrying a printout of the report, so it may make it to his reading list pretty soon. And I know that Steve Crocker will make sure that it's a perfectly visible priority.

So I believe that we have more than a reasonable expectation that the top has bought in and this will go down the hierarchy on that side. And we also found, I think I can fairly report that we made a presentation of this report yesterday to the GAC. We have I don't know, a dozen questions from different government representatives that had read the report that were very supportive of the contents, that were very supportive of ICANN actually carrying on, so you will have both sides of the, both top sides of the Affirmation of Commitments wanting for recommendations to be materialized and acted upon.

Of course, nothing of this will happen without some community pressure and you are out there and we are out there.

Mikey O'Connor: Mikey here. It's fine. I'm moving in to job well done mode now. I note that the number of you is much smaller than when you started this long march and so I want to note that and commend those of you who made it all the way to the end on a job incredibly well done. And I think one of the things that's interesting about these first time through AOC projects is that they clear the path for the subsequent generations. You're successors three years from now are going to have a lot easier job to do than you did, because you've sort of cut the first rough path through a very complicated issue.

So as you slump over your desks and hopefully hoist a beer tonight, I just wanted to say thanks a lot. You did a great job.

Alejandro Pisanty: That's so welcome to hear. The team members that are here are certainly basking in your praise. I certainly have to admit this has been a fantastic team to work with. And there's spirit, drive, quality, depth all over.

Olivier Crépin-Leblond: Thank you Alejandro, Olivier Crépin-Leblond. I just wanted to file a personal comment on the whole process. A few years ago when I started getting involved with ICANN processes and so on I felt that there were quite a few loose ends that hadn't been taken care of, especially since ICANN had been in operation for several years and seemed to be solely interested in gTLDs, the new launch etc. And it was going around in circles somehow. And it took 10 years, or more than 10 years actually

to reach the point of having those new gTLDs, or reaching the point where we are at today basically with regards to these new gTLDs.

There is one thing that I do have to say, is the amount of work that has been done recently, specifically on this subject, stability of the DNS, I think that if ICANN could have been criticized in the past for not doing its homework, definitely the amount of work done by this committee is one which I think surpasses any expectations that were there a few years ago. And certainly I feel a lot more confident today about the way this organization is treating those specific subjects. Thank you.

Alejandro Pisanty: Thank you Olivier. And I think that again goes to the review team, to the ICANN staff who supported us and to many members of the community who have been contributing. I would like to pass this praise also to the DSSA because the cross representation between the two efforts was very important, very, very important. Actually, the fact that the DSSA was doing its work at a very good space with a quality, depth, participation, broad view made us easily leave that, not aside but encapsulate it, something that's happening for sure and we don't need to get ourselves into.

That goes with your comment. And I certainly have to say personally also that I am, I think I was blessed by being part of this project also in meeting people who are newer to ICANN processes than I am and who are going somewhere real fast into proven leadership by resolve, capability and ability to communicate and just ability to lead and I'm very proud to have been part of that group; all praise for these guys here for what they've shown.

Jeff Brueggeman: Mikey to your point about kind of creating a path here I wanted to highlight I think some excellent work that Denise really did too. We started this process with a big question about how much sensitive and proprietary information were we going to be obtaining and how do we balance that with writing a public report. And through literally months of work I think we were able to get to a point where we as the team felt like we were able to get some documentation at a level that we didn't have to sign NDAs and we could comfortably present it in a public report.

And I think that is a model for our review team and this area in particular. And working for a large company I know that our security people hate to talk about anything relating to these types of issues, so it is a very big challenge. But I do think it's very important, it's very hard to reassure people if you can't talk about what's happening and what's being looked at. So I think that is a critical part of both our review and the future ones as well.

Alejandro Pisanty: Yeah the whole question of confidential information and non-disclosure agreements versus what you can contribute with only information that can be made available publically, which was our approach. We again decided not to get bogged down by the NDS question. Non-disclosure agreements would have taken us as long as we have been constituted and I think that at present, and this has been told to me by lawyer members of our group like Jeff himself, it would have taken us this year

and a half just to get those signed or come to a conclusion that we wouldn't have them.

And again, as we look forward we will recommend that people do as much as possible with openly available information, or that can be made available, in order to have the reviews themselves accountable. This was something we set ourselves for from the start, to be held accountable for the review itself. And we believe that within these boundaries we are in very good shape to be held accountable because all the information that was an input and all the informed opinion that was an input can be made available.

We cannot say "oh we learned this in a very hush, hush way so I cannot tell you why I arrived at this conclusion." Please.

Andrew Sullivan: Andrew Sullivan again. To follow up on that though, it occurs to me that while there will be minutes of this meeting and they'll be reflected in the proceedings that would be an extremely useful sort of one page response from your body for the community to hear. That look, we did this without any non-public information and this is a public benefit organization that is supposed to be operating what is after all completely public information, it's the information in the DNS. And therefore these procedures can be done with that kind of disclosure level.

It doesn't need to be a big thing, but something that was posted publically I think would be extremely valuable for future bodies of this sort.

Simon McCalla:	Andrew to address that as well, something that we've talked about certainly as part of the team and I know we've talked about to Steve Crocker is the possibility of, as you know we are the second of I believe four AOC reviews, and when all four are finished I feel that there will be real value in a collective reflection on this mechanism, particularly it's the first time through this mechanism.
	And each of the groups has got different sets of learnings and things have emerged as a result of the process and I think a pause, and I've said to Steve "I wonder whether a pause would be appropriate where we can gather and say what's best practice for the next rounds of review teams," because as you say, there's a lot of stuff that we learned in going through this. And I wouldn't say we spun our wheels, but we certainly had to think about how we gripped and got some traction in order to carry on. And actually we could hand that down to another review team and that would give them a catapult forward in their work.
	So I think there's definitely scope for doing this across all of the AOC reviews.
Alejandro Pisanty:	The fact that there are so many reviews and constantly, I mean I was in the team in the committee that in 2003 rewrote ICANNs Bylaws and introduced a mandate for reviews of every major unit of ICANN every three years. We now know a lot about what's achievable, what's not, the time it takes to get a review done, to get it published and accepted, to get plans for acting upon it done, and then to get to a point where

you can review the actions. And the information, the knowledge and the wisdom that the reviews unit where Alice and Olof were working, the wisdom they now have about these processes is amazing.

So it should all come together, not only the review teams experience, but also the staff experience and Denise Michel who's also an active participant in all of them. There's really amazing knowledge about what works, what doesn't. We have had some informal conversations for example about the level of attrition in the teams. Attrition, you mentioned it Mikey, you know you lose members of the team in every team work that we know of. But you have to look at the work and the other teams work to see whether through attrition you lose balance for example.

If it's random you may end up having a team that loses a whole set of stakeholders and if people are not aware enough they may just get into sort of the unconscious bias. So we have to transmit those kinds of lessons and analysis for the future.

Bill Manning: This is Bill Manning. For me, looking into the future, I think the largest impact that we will have is with the ICANN staff who are responsible for the security, the security team. And they annually publish their security, stability and resilience plan on an annual rolling basis. And it is notable, if you look back to where we started and their plan, and the plans that have emerged since then, including the plan for 2013, they without necessarily waiting for Board approval, because we have been in consultation they have adopted a lot of the ideas into the plan going forward.

And so much of what we've done is already incalculated in ICANNs processes in procedures. And so the next time we do this review, when many of us will be retired, dead, done with Board service, what have you the path that we have done and what we have done and how ICANN views its role I think will be part of the community expectation. Even if they can't point back and say "you guys did a great job," it will just be part of the ecosystem. And I think that's a better legacy than anything else.

Alejandro Pisanty: Thank you Bill. Are there any more comments? Do we have any remote participant comments?

Olof Nordling: This is Olof Nordling and it seems to be perfectly well understood from the remote participants of which we had at a maximum 11, now it's 8.

Alejandro Pisanty: Thank you. Any more comments from those people present here? I would like to close this session by thanking everybody for there – oh sorry, Olof.

Olof Nordling: It's Olof Nordling again. I shouldn't have spoken. I've got a question from Rosella, or rather a comment from Rosella [Matiolli] from NCSG and DSSA. Thank you so much for your work. If you could envision what would you like to see already operative implemented in the next

six months? Shall I repeat that? If you could envision what would you like to see already operationally implemented in the next six months?

Alejandro Pisanty: This will be my personal response. I will say that we are seeing and expect to see more clarity in the planning and budget side documentation. And maybe not in the next six months, but certainly in the next nine months we would expect to see a first document of the DNS risk management framework from the Board Working Group put out for consultation. And I'm saying not six months but nine, just looking at how the cycle of meetings is shaping up. There will be almost six months, there will be six months distance between the upcoming ICANN meeting in Toronto and the one that follow sin Beijing. Those dates have just been announced today.

So that takes us nine months, ten months into the future, into April next year. Because of the consensus seeking processes, I would expect that the Board will try to shorten cycles, the working group and the Board will not try to wait for the six months. But this will be like ten months or so, nine or ten months to have that framework out for comments. Those are the main results. I mean lots of other things should be happening, but if those two do happen then this thing is working. Thank Rosella for that very practical question.

Jeff Brueggeman: I didn't want us to conclude without us thanking you as our Chair for your leadership and active work. As not only just being the Chair but being one of the core working team throughout on both your guidance

and assistance with us as well as your work within the broader community during the process, which was very important. So thank you.

Alejandro Pisanty: Thank you. I'd like to quote on – I'm not a quotes person, but there are two or three and one is if I was able to see any further it's because I was standing on the shoulders of giants. I really mean nothing without a team like this would have been possible. Thank you very much. Thanks all for attending, and this session is adjourned.

[End of Transcript]