

Edmond:

We did mention on one of our calls and Dave mentioned it as well. We do keep that in mind and I think it's a very good comment and we should definitely make sure we have it.

Julie:

Thank you Edmond, I want to ask if those people who are on the phone have any questions.

Male:

Julie Dave (last name) says only SSAC members can hear and the other audio is being disabled. I'm not sure why.

Julie:

While we're dealing with that technical issues are there any questions from those on the phone? Thank you very much and Edmond thank you very much. I'll certainly follow up with you on any other questions that may result. And for those who didn't have the opportunity for audio we'll try to connect with them with presentations.

Steve:

We're going to move to an update on the deliberations that SSAC has been having on root scaling issues. Rom Mohan is going to make the presentation.

Rom:

Thank you and can we go to the next slide. So just as a background, in February of 2009 the ICANN Board asked SSAC as well as the Root Server System Advisory Committee RSAC to coordinate a study. The reason they asked this was to ensure that we had a good sense in the ICANN community of what the potential impact on the stability of the root might be. We were looking to add at least 4 things, DNS SEC, IPV 6 addressed, IDN TLD's as well as new TLD's.

So SSAC and RSAC and staff got together and commissioned a report and we got a report back. In September of last year SSAC began consideration of two reports that it received. One was the Root Scaling Study Team, the RSST and the other was a TNO report which had to do with methodology. SSAC has already provided a public response and thoughts and recommendations on the TNO report. And since September has been vigorously engaged in discussions and deliberations on the overall root scaling study itself taking the RSST's report as input.

On the next slide, you will see in SSAC's discussions so far what seems clear is there are multiple changes that are planned for the root system, some are small and some are large. In looking at that what seems to be the sense of SSAC is that signing the root, getting DNS SEC in is a big change. It is a big change partly also because it is a change that happens all at once. At

one moment you have a root that is not signed and the next moment it's signed and that's an abrupt shift from one stage to another.

On new TLD's what the sense of SSAC seems to be is that really the impact or the stability and security impact might be dependent on the rate of change of introduction of new TLD's into the root zone. Now IDN's the point of view seems to be converging towards a thought that IDN's by themselves are just like any other new TLD except there are some special situations that have to be dealt with. IPV 6 we believe is a small impact and a new consideration has come to our attention, which is (4:30 inaudible) serve locations.

Let's go to the next slide where we are talking just about a DNS SEC itself. Now the good news is that signing the root is well under way. There is a large amount of work that has been done, the root is expected to be signed and in full operation in July. So far we're not seeing in the test responses as well as the overall process nothing bad seems to have happened. That gives some level of comfort relatively speaking that among all the factors we were considering this big change, this potential game changer, so far is going well. But this may change with some new level of data that comes our way and where our level of comfort is might suddenly be different.

On the next slide, on new TLD's the thinking so far seems to be evolving towards the perspective of answering the following question. If you add new TLD's to the root server system is it going to overwhelm it? If it's going to overwhelm it then how many new TLD's is it going to take to overwhelm it? Or is there a timeframe or some sort of threshold event that will cause this system to be overwhelmed? If there is such a threshold how would we even know that such a thing is happening?

Now ICANN has presented and published now on its main site a delegation rate report that speaks to maximum of 924 per year, a year after the initiation of the new GTLD program. But having said that, what is not clear is or what seems to be clear at least in some of the SSAC deliberations is although the capacity might exist for 924 per year, it is not clear that there is capacity in the legal department of ICANN, the Board itself or the US government who are all active participants in the delegation of a new TLD into the root zone that they can accommodate that rapid level of changes.

The other question is whether the root server operators can accommodate that many new TLD's. the sense seems to be probably yes but really what we have to figure out is what is the rate of change and the concerns that have come through tend to be about how much and how soon rather than the overall number. It is not just an "x" number of TLD's in the root zone. It is over what period of time.

Now on the next slide IDN TLD's really are just a special case of new TLD's. they have been added to the root zone before and they work fine except there is a special situation that inside of SSAC our conversations have moved towards, which is if there are requests for IDN TLD variants to be delegated to the root zone and in that area there are technical and operational

issues that are not yet thoroughly worked out. There are several potential methods to ensure the variant TLD's point to the same locations if they are delegated into the root zone but much more work needs to be done there.

Now having said that, the variant IDN TLD issue by itself is separable from overall scaling issues. The only thing to keep in mind is that the wrong approach on addressing how to delegate variants into the root zone could cause stability issues now and in the future.

On the next slide, IPV 6 itself as I mentioned earlier, the consensus seems to be emerging at least or converging towards a point of view that IPV 6 records itself is really a small impact. They've already been added at a slow and steady rate and we anticipate the impact on the size of the root to be very small.

So that brings me to the next slide on a new consideration that we're looking at, which is the location of any cast servers. This is a new consideration not previously explicit in our deliberations, which is that there is a possibility that a remote location of any cast instances of the root zone might inhibit the growth of the root zone itself. Root server operators have not spoken clearly on this yet and there is not a commonality of perspective on this area even from within the root server operators.

So our conclusion in SSAC is that we need to engage in some straightforward discussion with the root operators to get to a much better understanding of where we need to go. Which brings me to the status and conclusions to date.

What seems clear inside the SSAC is that the RSST and TNO reports by themselves are not sufficient to conclude the root scaling study that we've been tasked by the Board. That is not sufficient. Now several issues may potentially impact scaling of the root, the placement of the any cast is an example of that and there may be other issues that might come up. There is work in progress right now to identify the gaps between what the SSAC, RSAC and staff had identified in 2009 as the scaling study and what actually has been done so far that is a part of the RSST report.

Those gaps have to be filled and more work needs to be done. It is also; another area where there is discussion ensuing inside of SSAC is in the area of communication between ICANN and the root server operators. Should it be improved? Could it be improved is an area that we're spending some time on.

So the way, the sense I get listening in to the various SSAC discussion on root scaling is that potentially further work may not be needed, may not be required to start new TLD delegations. But could certainly be required to continue delegating new TLD's and some of that will obviously come through based on looking at what the impact of the first set of delegations into the root zone are.

In terms of timeframe, we're targeting completion of SSAC recommendations on root scaling in the 2nd quarter of this year. And to initiate what we're calling Scaling Study Version 2.0, which is a study to look at the pieces which have not yet been considered or that were not adequately covered in the first set of studies to have that work begin in the 2nd quarter. And in the 3rd quarter, one of the things we looked at as SSAC and RSAC but SSAC specifically that we looked at in 2009 when we began the root scaling study was and we bookmarked it as something that is important but not urgent at that time, had to do with what is the impact on end users? And that work it's time to take it up.

We expect to start looking at that in the 3rd quarter of 2010. So that is where we are and I'll move to questions.

Julie:

Thank you very much Rom. Maybe I'll start with questions in the room, do we have some questions in the room here in Nairobi?

Curtis:

Just to understand what Rom just said here, so is SSAC proposing that if no further studies are needed at this time but maybe in the future, either in the DAG or any other ICANN document would put a future check point or limit the number of new entrants into the first stages?

Rom:

I don't think that was the intent Curtis. What we're saying is that especially on DNS SEC if we have some clarity as to what was going to happen post July it seems possible that the first of the delegations into the root zone for new TLD's could begin. But we have to then look at what that means and what side effects might be.

There is the other studies we're doing as well and that would inform further recommendations or further thoughts that SSAC may have.

Julie:

Any more questions in the room? Thank you and I would like to ask if there are questions from those on the phone or in the audio room. Thank you and let me just check quickly to see if we have any questions in the chat room. If there are no more questions thank you very much Rom and I think we'll move to the next presentation.

Steve:

This will be Jim Galvin on orphaned name servers. Jim are you there?

Jim:

Yes I am. Thank you this is a new work item for SSAC recently started. There is a small group of us who are leading this effort all from SSAC. I am representing the group and Jeremy Hitchcock is also on the team, Jeff Bedser is actually the Chair of this work group and we're supported by Steve (last name) who is going to be doing most of the work for us here.

On the outline the first question that comes up is what is an orphaned name server? The very simple definition is it is simply a name server record that exists in a TLD zone for which its parent domain no longer exists. In a moment, we'll take a quick look at how a name server record becomes orphaned and we'll mention why we care about this problem and then I'll tell you a little bit about what we're planning to do.

So it's a 2 step process for how a name server becomes orphaned. We see here at the top an example of what a TLD zone file might look like. You have 2 zones, 2 domains and you can see in this example they both use the same domain servers, they both use ns1.example2 and ns2.example2. And down at the bottom we see the 2 glue records for those 2 name server records.

The 2nd step is then the owner, the Registrant, for example2.tld, so they delete their domain name for whatever reason, it could be an ordinary renewal and they decided not to renew or whatever but as a result of that you can see that you still have example.tld using ns1 and ns2 and you still see the 2 glue records down left in the zone for ns1 and ns1.example2.tld.

In general, a Registry cannot unilaterally just remove these records for exactly this reason; there could be other domains that are using those name servers. The problem is more propagated when it is actually a domain in another TLD instead of these 2 domains represented here in the same TLD.

Next slide please, the reason why we care about this problem, actually there are 2 reasons here in this statement. An early study by the APWG, the Anti-Phishing Working Group conducted showed that 3.4% of all malicious domains were used as malicious domains that were used were actually orphaned name servers. Actually more significantly is the fact that 59% of malicious domains associated with (18:37 – inaudible) attacks were shown to use orphaned name servers.

So in general this is obviously a security and stability problem for the internet. So this is why we have decided to take a look at this issue and see what we can learn about it and what we can recommend. So next slide please.

We have 3 things we're going to do to gather some empirical evidence and facts to help us and then we will study those and try to consider what we can recommend with respect to orphans. What I'll do here is just skip to the next slide cause it documents them as particular studies. So the first study we're going to do is actually measure the orphaned records in GTLD's. We believe we can do this simply by using the zone file depository that ICANN has. We'll go

through and look at that data and actually count, determine, identify orphaned records and categorize them and see what the size of the problem really is.

The second thing we'll do is try to measure how much those orphaned records are used for abuse. One way in which we'll be looking at that is to check various kinds of blacklists and see if any of these domains or their parent domains are listed on those blacklists. We may, we have yet to decide if it's possible for us to identify other sources of abuse. Certainly if anyone has any suggestions we're interested in hearing those too.

The last thing we'll do is a semi structured set of interviews with various TLD's and Registry operators and ask them how they're dealing with orphaned records today. so once we have an idea of how prevalent they are, in particular when we can identify TLD's in zones that don't have very many or in fact may not have any we will be reaching out to those in particular to see what they do in order to maintain that quality of their zone files.

Once we have all that we will be taking a step back and looking at whether those solutions that others are using if they can be applied to other TLD's, are they generically applicable and what we can do, the hard part of the problem is when there are orphaned records that cross TLD boundaries. And if there is anything we can recommend or suggest as far as that is concerned.

Again, this is really just a work in progress. I would be happy to tell you as much as we know here about this. Of course, if anyone has any suggestions or advice on how we might proceed and things we might look into, questions we should ask as we're going through this, we'd be very happy to hear about those too.

So with that let me ask for questions from the group.

Julie:

Thank you very much Jim. Yes we do have at least one question here.

Roy:

Thank you and this is Roy Aarons and Jim I've had various discussions within the ITF over the term orphan glue and I've noticed the term orphan glue is often considered in at least one other case, sorry name servers. The term is used as well for the case where the right hand side of a name server record, sorry when a domain still exists and the address record still exists where the address record doesn't relate to the right hand side of an NS record anymore. I'm not sure if this makes sense

Jim:

It does actually and that's a good point and I want to thank you for bringing that up. I had not actually, we had not considered that and we have not talked about that particular point. But we

will certainly bring some clarity to that and see what we can find out about that too as far as doing our empirical examination of zone files.

Roy:

Okay Jim. Just a remark on the previous one where the right hand side is not used anymore, is it going to be very hard to abuse? I assume your study is not solely focused on the abuse of glue addresses but the phenomenon in general.

The second point I wanted to make is sometimes this is used, for instance, to register www.example.com so resolvers will find www.example.com faster than they normally would. This is when instead of in your example you don't use ns1.example2.com but you simple use www.popularname.com.

Currently VeriSign is switching their servers over in order to not serve that address anymore in their answer section but remains in the additional section. This is also related to your study. Maybe if this is a scope you can touch on that as well? Thank you.

Jim:

We are obviously aware of what VeriSign is doing and that will be something that is included in our documentation of the phenomenon in general. And just to agree with you on your earlier distinction about not being able to find abuse when the address is not being used anymore but we should be able to, as far as the study, identify the second class of orphan glue records that you described.

Julie:

Thank you Jim. Are there any more questions in the room here in Nairobi? I'd like to ask if the folks on the phone or in the audio room have any questions. Hearing none, Jim I want to thank you very much for your presentation. It was quite helpful. If I hear any other questions after we finish off here or if anyone wants to suggest anything to me I'll be sure to gather up that information and turn it over to you and the rest of the work party, thanks Jim.

Steve:

Let me thank you too Jim and if I haven't lost track of our agenda is it my turn? All right. We have until 3:30 and this is scary. We are running ahead of schedule and the very uncomfortable thing about that is that gives us more time than I would like to discuss the very dry and boring subject of the review process and the administrative changes within SSAC. So here we go.

Last year, there was a...let me back up a bit; there is a requirement in the bylaws that every part of ICANN be subjected to a periodic review process. I'm not sure what the count was of the number of components, there are 4 advisory committees, 3 supporting organizations of the Board, there is the non-com, so that counts up to 9 and I'm not sure if that is the total count.

SSAC was not at the beginning of the list nor at the end. It was put somewhere in the middle. So our turn came up at the beginning of it says 2009 but it was really early I think, yeah 2008. So the general structure is and I'll do this from sort of the inside of the process out is that an external party is appointed to do a review. But preceding that there is an oversight group that is a subset of the Board or past Board members that forms what is called the SSAC Review Working Group.

So that was appointed and the terms of reference was created and JAS Communications was recruited as consultants to independently review SSAC. They did their review in the fall with input from the community and they released a report in February of last year, followed by a public comment period.

What is supposed to happen normally after that is that the Board working group takes the external reviewers comments, takes public comments and then writes a set of recommendations for the Board. I've been Chairing SSAC from its inception in 2002 so that's a full 8 years now and one of the things I've been very conscious about is that we've been evolving from a very small non descript unformed organization and gradually acquiring processes, gradually acquiring a certain rhythm and pace to our work. And equally I've been conscious of not only the successes we've had but where are some of the weaknesses are.

I thought it would be entirely appropriate for us to do a soul searching on our own and in a certain sense we are the most expert about ourselves. That doesn't mean that we should be the only ones reviewing and making recommendations about ourselves that would not be independent and it would have a lot of built in bias. But I thought it would be entirely appropriate to offer up our own perceptions about that. So we engaged in a substantial process to do an internal review and very carefully staged that and there are differences of opinions about whether this was the right way to do it or not but I'll take the responsibility and the burden of that myself.

Of waiting until the external review was complete so as not to try to perturb or put any spin on the external review, to leave them to do their work as they saw fit. We then did our internal review and offered that up as our opinions on a number of different points and released that to the public and to the Board working group. So all of that has come to a conclusion in the fall of last year and then things were turned over finally to the Board working group.

I must say they accepted our input in a most constructive and most positive way for which I was very pleased. And further and even more gratifying was that on most of the specific points that were dealt with both by the external review and ours, the views we put forth tended to prevail. So that is the broad overview.

So the next slide, so the main highlights are one question is whether we need to exist or not? It is a non-trivial question, SSAC was created in the wake of the events of 9/11, every organization in the world said oh we better focus on security. ICANN was no different and so out of a perfectly

natural good sense of saying we ought to have a focus on security, SSAC was created. But now quite a lot of time has progressed since then and I think it's time, it's fair to take a fresh look and say of all the different security activities related to ICANN, maybe SSAC is not longer relevant. I'm not sure that's a fully subtle question but there was no appetite for backing away from the existence of SSAC.

So we like it or not we continue to exist and try to make ourselves useful.

There was a suggestion that we try to be a bit more orderly in our planning processes and give a sense of where we're going and allocate resources and so forth. That we should try to be a bit more open about our discussions and deliberations and that we should publish minutes not in an overly onerous way such as a transcript but in a way that is intended to be timely and informative and to beef up our external communication and keep our website current and our work on time and in line with what we planned.

All of those I must say resonated very, very strongly with our own internal perceptions and that we had been trying to move in that direction anyway. So having the pressure from the outside only added to that. I think we have, in fact, made those kinds of adjustments.

A different question entirely had to do with membership. The charter, the language in the bylaws for SSAC contains only one element that relates to memberships which says, the Board shall appointment the members of SSAC. It doesn't give any criteria, it doesn't give any timeframes, it doesn't give any limitations on how long members serve. It doesn't even say what the criteria is for service or what the obligations are. It's a very simple statement.

We have come to the conclusion and I think this is where it is going to wind up and require indeed a change to the bylaws that we will have a formal appointment for 3 years and that will add a little bit of formality to the process of membership and make it natural for people who have given as much time as they want to rotate off the committee in a natural way and to also provide a clear expectation that when we bring new committee members on. And then as a detail of that, no limit on the number of renewals. I don't think we have enough experience to know whether somebody served too long yet and, of course, we'll stagger the terms so that there is an annual process instead of a turnover every 3 years.

Another area of concern was how to deal with confidential information. There is a tension between openness and sunlight which is very, very important and the ability to deal with sensitive information. And particularly in the areas of security there are sometimes and, in fact, one might argue often instance in which information is very sensitive and disclosure beyond a limited set of people would be harmful.

Our focus generally is not so much on the immediate operational issues but more on strategic and architectural issues and so our default is to be very open about what we do but that said, there are at least 2 areas where or 2 classes of situations where confidentiality is important. First of all, in

the internal discussions within the committee before our recommendations are fully formed and ready to be published, a degree of confidentiality is important so that we avoid confusion and we permit open discussion within the committee.

Second and this is and I'm taking things a little out of order from what is on the slide, there are situations for which information is sensitive and we ought to be able to handle that information in a confidential forum. I'll come back to that on the next slide.

There is a whole separate set of issues related to the tension between how intimately familiar individuals are with specific issues, some of which might come from their involvement in that class of activity in their other lives. So there is a conflict of interest issue or the appearance of conflict of interest or a potential conflict of interest. And a related but somewhat distinct issue as to whether or not when recommendations are made by the committee and published to what extent those represent broad or narrow consensus or differences of opinion, all of which results in adopting a slightly more formal approach to describing what our backgrounds and our current involvements are, whether or not we have any specific conflicts of interest in a particular case and with respect to a given recommendation in a particular report whether or not there are dissensions or abstentions from the process.

We now move to a much more careful process when documenting that and we welcome feedback. I must say we're sensitive about this and we try not to spend too much time on it and get no work done and at the same time we're not at all unknowledgeable that this is an important area. Next slide. That was it.

So there wasn't an explicit slide about the ability to handle confidential information sometimes. So that is the essence of the substantive recommendations that have been assembled from this process that involved the external reviewers, the public comment process, our own internal review and the integration and evaluation of all of those by the Board working group.

The Board working group was and is chaired by Dennis Jennings. I'm trying to remember who the other members of the review committee are – Suzanne Wolf and Ray Paulsak is on it. It is interesting because I serve in the complimentary role in the review of RSAC and all that has been going on in parallel, so it's been interesting to see both sides of the process.

I think we're very close to the end of this process. I think the recommendations are going to be presented by the Board working group to the Board and I'm not sure whether in this meeting or shortly there will be formal resolutions adopted. But I'm anticipating that we should be able to wrap this process up, including formalization of the changes to the bylaws, I'm guessing by Brussels. So as a nominal guess by the next ICANN meeting in June.

With that I think I will pause and open the floor for questions, for discussion, for any comments. Marco?

Marco:

I just passed by and saw a slide on the review of the SSAC so I couldn't resist I had to jump in. it was just to say that tomorrow this report will be presented with other 2 reports that have been finished at the same time. So a presentation of the final working groups report, SSAC, Board and non-com will be done from like 9 to 10. So it will be a final presentation of the 3 reports.

Steve:

So that's from 9 to 10 tomorrow morning and I hope none of the people here are there because at the very same time we have the DNS SEC session which has real substance and meat and is, of course, much more important than these administrative processes. So I say that mostly serious but some tongue in cheek but also I want to recognize Marco who has done a stellar job at providing staff support to these Board working group teams. I've had the opportunity to work closely with him as I said in the complimentary world of serving in the committee for RSAC. He really has made a difference in the effect of us getting these done. So thank you very much.

Marco:

Thanks to you Steve and I must say just this morning I was presenting to the GAC an update on the organizational reviews and I was quoting the SSAC review as the first one, that we had a discussion with the community and the involvement of the community in the review process.

Steve:

You peeked my curiosity; did the GAC have anything specific to say?

Marco:

Not on the content but on the mantle. So on the mantle they are extremely interested in seeing that we are experiencing; we are experimenting ways of involving the community in the review process not the top down approach but the bottom up participation of the community.

Steve:

Yeah bottom down is a way I think a lot of the staff actually go.

Julie:

Are there any questions in the room? Go ahead Bob?

Bob:

Is there a place where the recommendations are currently published?

Marco:

Yes if you go to the independent review website you have a link to all the detailed reviews and all the records are published in a single page.

Julie:

Thank you Marco. I will go ahead and send that link to you Bob and to the list as well for those who may need it. Are there any questions from those on the audio or teleconference? I see no questions in the chat room. So we don't have any further business for this meeting today.

I want to thank everyone who has joined us in the teleconference and in the chat and of course here in Nairobi. Thanks to all of you and this meeting is adjourned.