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DURBAN – SSAC Public Session  
Thursday, July 18, 2013 – 08:00 to 09:00  
ICANN – Durban, South Africa

[JULIE HEDLUND]: Is there anyone on the telephone line? Very good. So hold on and we'll start shortly. Thank you.

UNIDENTIFIED MALE: This is the SSAC public session going from 8:00 a.m. to 9:00 a.m. July 18, 2013 in Hall 4C.

JULIE HEDLUND: Good morning, everyone. This is the Security & Stability Advisory Committee Activities Update at the ICANN Durban meeting in South Africa on 18 July 2013. Is there anyone on the SSAC teleconference line? All right, then. I think we'll go ahead and begin. This is Julie Hedlund, ICANN staff. I'd like to turn over the meeting to Patrik Falstrom, the Chair of the SSAC.

PATRIK FALSTROM: Thank you very much, Julie. Welcome, everyone, to the open meeting of the Security & Stability Advisory Committee in the ICANN meeting in Durban. Next slide, please.

What we'll talk about today is, first of all, the general overview of the status of SSAC at the moment. We will present the latest report, SAC 59, a letter to the Board regarding interdisciplinary studies. We will present

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*Note: The following is the output resulting from transcribing an audio file into a word/text document. Although the transcription is largely accurate, in some cases may be incomplete or inaccurate due to inaudible passages and grammatical corrections. It is posted as an aid to the original audio file, but should not be treated as an authoritative record.*

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an update on the status of the Variants Work Party, which thanks to very hard work from SSAC members, we do have consensus on the resolutions and recommendations which I will mention what they are. We will then get update by Russ Mundy on the Root Key Roll Over Work Party and from Merike Kaeo on Abuse of DNS Work Party. Next slide, please.

So SSAC was initiated in 2001 and began operation in 2002. Our charter is to advise ICANN community and Board on matters relating to security [inaudible] naming and address allocation systems. We have 39 members and they are appointed to ICANN Board for three-year terms. So reviewing one-third of the members each year.

The current activities that we do in the form of work parties or working groups, but we call them work parties in SSAC, are the ones that you see on the slide. SSAC membership, DNS SEC Workshop. Some of them like the membership in the DNS SEC Workshop are sort of standing work parties working with specific issues.

Others, like for example, Identify Abuse Metrics and Root Key Rollover are the groups that are supposed to and asked to come to conclusion. Either make a decision that a document should be produced or come to a conclusion that no document is needed.

So you see, for example, regarding the IGF Workshop, we had a workshop a couple of years at the Internet Governance Forum and we also plan those activities also in the form of work parties. Next slide, please.

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The publications, it will go through them by category June 2012 and 2013 to remind people where there are recommendations that are outstanding. We have been doing a large number of them – reports – on security and abuse issues related to DNS, where the last one has to do with interdisciplinary studies that I will present shortly. Next slide, please.

We have one publication on internationalized domain names, which is an Advisory on Delegation of Single-Character Internationalized Top-Level Domains. That's a long title.

But as I said, we have another one related to IDN over variants coming out shortly. Two reports on registrant data WHOIS which are comments on the WHOIS Review Team. And here are examples where we are and we are very happy that the reports are included in, for example, the work brought into the Expert Working Group. Next, please.

So I would like to start by asking if anyone has any questions on SSAC operation. Hopefully one of the reasons why I go through – yes, sir. Oh, yes, Marilyn. Sorry.

MARILY CADE:

Thank you. My question is actually just – I'm sure this is true, but I need to verify it. The session is being transcribed. Is this correct?

PATRIK FALSTROM:

Yeah. It's not live transcription. It will be transcribed. Okay. So SAC 59, SSAC letter to the ICANN Board regarding interdisciplinary studies. Next, please.

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So there have been a couple of reports from SSAC specifically that recommend studies to be made. Specifically, we have recommended interdisciplinary studies to be conducted related to the expansion of the root zone.

What we are referring to are what we have called Interdisciplinary Studies specifically done for the root zone scaling issues. So what happened was the 13<sup>th</sup> of September 2012, the ICANN Board of Directors asked SSAC to provide advice on how interdisciplinary studies on security and stability implications from expanding the root zone more than an order of magnitude should be carried out and whom else should be consulted.

So what we did was that we wrote SAC 59 where we provide SSAC advice on the composition of those interdisciplinary studies, the team's broad topics and specific examples that we think should be looked at or inspected – basically, explained what we meant by those recommendations. Next slide, please.

So the overall goal of the studies we found has to be specifically in two areas. One is to engage with communities that might not have been fully consulted by previous investigations. So whenever a new investigation is conducted, it's very important to look at who was consulted and who should one contact to be able to make sure that all the studies together get a full coverage of the topic.

The other one here has to do with a similar kind of thing. Investigate various issues that have not been identified by previous studies. Next slide, please.

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So SAC 59, from our perspective, yes it is on the response to a very specific question about interdisciplinary studies related to the expansion of the root zone. But what we did was we tried to write it at the same time in a generic way so that it would be possible to apply the same kind of guidelines when issuing studies on other topics as well. Any questions on that, or any SSAC members that would like to expand on this?

Okay. So one thing I didn't do, let me do that know. When Ram arrived, that prompted me to it. I didn't present as we try to move this ship forward. I'm Patrik Falstrom. I'm Chair of SSAC. To my left, I have Jim Galvin which is the Vice Chair. And to his left is Ram Mohan, which is liaison from SSAC to the Board. To my right, I have Julie Hedlund which is one of the three support staff. We also have Steve Sheng not here and Barbara Roseman which is still in the United States. So the IDN Variant TLD Work Party.

The SSAC Work Party is responding to Board resolution from the 11<sup>th</sup> of April 2013 where the Board requests that by the first of July 2013 [interested] supporting organizations [inaudible] provide staff with any input and guidance they might have to be factored into implementation of the recommendations from the Report on User Experience Implications of Active Variant TLDs.

So what we did was that we went through that report and found that to be able to address some of the issues in this user experience guidelines, we had to look a little bit broader on some of the other documents really to LGR to be able to get full coverage.

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So the report comments on the label generation rules procedure for the root zone, the [inaudible] and variant generation rules, the change process of LGRs and other user experience report [inaudible] recommendations.

We do provide comments related to the following issues. Some of these are for people in SSAC and people who work with security and stability. It's a little bit like motherhood and apple pie, but it was important for us to explain how we believe these principles should be applied to something like internationalized domain names, and that includes the conservative principle, the process – how to handle a situation in which there's disagreements, how to handle backward compatibility, when various algorithms have to be updated, the applicability of the root label generation rules to second-level and high-level [inaudible] domain name [tree], and also we had a look at what we believe the operational [inaudible] of ICANN's new TLD functions all with respect to variance. Next slide, please.

So the Work Party has produced a document for full SSAC review until July 17<sup>th</sup> and we declared consensus yesterday. What now will happen is that we will finalize the actual document for publication, which is a pure editorial issue but it's still the case that it takes a little bit of time to get all the paperwork together.

But what we have decided to do in SSAC just to be able to have as much discussion as possible on this topic is to have me tell you what the recommendations are. So we have 14 recommendations and they're the following.

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Recommendation 1: The root zone must use one and only one set of label generation rules.

Recommendation 2: ICANN must maintain a secure, stable, and objective process to resolve cases where some members of the community (for example, an applicant for a TLD) does not agree with the result of an LGR calculation

Recommendation 3: ICANN should concentrate foremost on the rules for the root zone.

Recommendation 4: ICANN should coordinate and encourage adoption of these rules at the second and higher levels as a starting point through Updating the IDN Implementation Guidelines and recognizing that a modified version of these rules or a review or appeals process must be required to address special cases for the first and second levels;

Maintaining and publishing a central repository of rules for second-level domain labels (2LDs) for all Top Level Domains (TLDs), encouraging TLD operators to publish their LGRs publicly in the repository maintained by ICANN; and

Conducting specific training and outreach sessions in cooperation with generic TLD (gTLD) and country code TLD (ccTLD) operators who intend to launch Internationalized Domain Name (IDN) 2LDs or IDN TLDs, with a focus on consistency of user experience. The outreach should include among others registrants, end users, and application developers.

Recommendation 5: Be very conservative with respect to the code points that are permitted in root zone labels.

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Recommendation 6: Because the implications of removing delegations from the root zone can have significant non-local impact, new rules added to a label generation rules must, as far as possible, be backward compatible so that new versions of the LGR do not produce results that are incompatible with historical (existent) activations.

Recommendation 7: Should ICANN decide to implement safeguards, it should seek to distinguish two types of failure modes when a user expects a variant to work, but it is not implemented: denial of service versus misconnection.

Recommendation 8: A process should be developed to activate variants from allocatable variants in LGR.

Recommendation 9: ICANN must ensure that EBERO providers support variant TLDs, and that parity exists for variant support in all relevant systems and functions associated with new TLD components.

Recommendation 10: In the current design of rights protection regime associated with the TMCH process, there is a risk of homographic attacks. The roles of the involved parties, specifically registrars, registries, and TMCH, related to matching must be made clear.

Recommendation 11: When registries calculate variant sets for use in validation during registration, such calculations must be done against all of the implemented LGRs covering the script in which the label is applied for.

Recommendation 12: The matching algorithm for TMCH itself must be improved.



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Recommendation 13: The TMCH must add support for IDN variant TLDs. Particularly during the TM Claims service, a name registered under a TLD that has variant TLDs should trigger trademark holder notifications for the registration of the name in all of its allocated variant TLDs.

Recommendation 14: ICANN should ensure that the number of strings that are activated is conservative.

Those are the 14 recommendations. Any questions? Marilyn?

MARILYN CADE:

It's going to be a standard question, so let me ask it now. One of the things I'm noticing is that in the past it may have been okay to just publicize information because certain categories of players in the distributed environment knew where to go to look for this updated information.

But we're living in a world now with a very widely-distributed set of webhosting entities, very small companies, the emergence of a lot of new players from Africa, from Latin-America. Has the SSAC talked about and that's why I'm going to ask the question and we can come back to it later. Has the SSAC talked about new mechanisms and new approaches rather than the pull approach and the idea that you're going to have to find ways to publicize awareness about where to go for these kinds of change information in a kind of evolving applications environment?

PATRIK FALSTROM:

Yes. We are thinking about it and we do understand it's a really hard problem. We are in this as part – let me take a couple of examples. The

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first one is that we do have a work party not related to what I just presented that are looking at, for example, the public suffix list. Because what we have seen and got reports on is that it is problematic for even ccTLDs to know that they should report changes in their policy to whatever the suffix list – wherever that is maintained.

And knowing all of these processes [inaudible] point out is a difficult issue. So we have [work] looking at, for example, that is one example of something that we have ongoing. Another example, which goes back to this report, is that we are touching to this when we are looking at the risk for different LGRs (Label Generation Rules) for the same script in different TLDs.

That is why we are recommending that ICANN provide a central repository for those LGRs so it's easier for the various registries and everyone that needs to access those LGRs to be able to fetch them from a central repository. That is the mitigation [inaudible] for this specific thing with the multiple LGR rules that are coming out to make things easier.

That said, it doesn't solve the question of push mechanisms that you're talking about. But in this case, we came to the conclusion it is better to have a pull mechanism instead of everyone talking to everyone. Okay. But we do also, in this report as a recommendation, we strongly point at the need for outreach to be able to educate people because there is a need for everyone involved that needs to calculate label generation rules to be able to do that with all the rules that exist.

That's also why we are to solve the problem regarding variance and the Trademark Clearinghouse that we need to be clear that we believe

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needs to be clarified quite extensively. That's why we give in general two different alternatives to do that. Either the requirement is the one that sends things to the Trademark Clearinghouse, including both the ones that send data to the Trademark Clearinghouse but specifically the one that want to do queries to the Trademark Clearinghouse.

Either the client, the one searching, calculate all the variants and send all the variants to the Trademark Clearinghouse to see if there's a match. That means that the client needs to have accomplish to the label generation rules for all labeling generation rules covering the script that specific string consists of, not only label generation rules that, for example, specific registry is using themselves.

Or the label generation rules need to be implemented inside the Trademark Clearinghouse, so when you send a string to the Trademark Clearinghouse it's not only sort of calculated on that specific string, but it also matches all the variants. So that is one example where it needs to be clarified. Is the calculation of variants a responsibility for the one that do lookups or is it something that will be implemented in the Trademark Clearinghouse?

From [SR] perspective, we don't have much view of which one, which method, will be chosen. We have pros and cons for both methods. Both of them have significant pros and significant cons and we leave it to people to read the report. Julie?

JULIE HEDLUND:

I just want to see who joined on the teleconference bridge. Did someone join the teleconference? All right. Thank you.

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PATRIK FALSTROM: Any more questions? Ram? Or clarification from SSAC members.

RAM MOHAN: Thank you. This is Ram Mohan. One of the things that I wanted to emphasize is on the variant document – on the IDN document – that SSAC has produced, while this studies the User Experience Report, there are more things going on than just this. This may not be the final piece of work from SSAC when it comes to IDNs and the Variant Program, the LGR. There's a lot of work that is T'd up. So this is, in my opinion, quite a reasonably authoritative set of recommendations but it feels to me like there's more that might be coming.

Many of these have implementation impact and some of these may result in changes to the rules or the contracts or Applicant Guidebook type of things. We in SSAC, in the Work Party and in SSAC, we've also been cognizant that this is not a gTLD problem. This is a TLD oriented issue. And recognize that the ccTLD community also has to take into account where ICANN doesn't have authority or control, but there are strong technical recommendations and guidelines and we need to find a way that the CC community also can adopt or at least embrace some of these recommendations. Thanks.

PATRIK FALSTROM: Thank you, Ram. Anything else? Of course this would be much easier to discuss when the report actually is released. But we did have some discussion on whether we should at least inform about what the recommendations are to be able to discuss more freely – let SSAC members discuss more freely. During the last hour or so of the ICANN

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meeting, we decided this was the best way to move forward. So with that, let's move to the next presentation. Russ, please.

RUSS MUNDY:

Thank you, Patrik. Russ Mundy reporting on the Root Key Rollover Work Party update. This is work that is underway but not yet complete, but we wanted to give the community a chance to see what we've done so far and are considering that may show up in the end.

So the primary purpose is to examine the issues and consequences and mechanisms and things that could occur as a result of what we're calling and generally is referred to as the rollover of the root key.

What this actually means is an additional key signing key beyond the one that was initially used to sign the root zone in 2010 will be inserted into the root zone as a second signing key. It will, at some point in time, the old key signing key will be removed. In simple words, that's the mechanism. Now, what actually occurs and what are the impacts is what this Work Party is exploring.

So we're looking at the various scenarios in which you could do it, and the reason that I pointed out that a new key would be put in is I don't think anyone believes that there is a scenario that says you rip out the old root key and not have the root zone signed for a while. Then at some future point you put it in and resign the root zone – not practical, okay? That's a scenario that, in theory, might be possible but it's really not one that's being considered by anyone.

The exploration of the complexities and complications that occur as you go through this process of changing the root key. The fact that this is the

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root key is important for a number of reasons. One, there's only one root zone and this is the key signing key for the root zone, which means it's used as the top of all of the DNS security – anytime you're doing validation, anytime you're establishing chain of trust. For all practical purposes, this is the key that's used as the starting point for your chain of trust in doing DNS SEC validation.

So IANA and other people – ICANN [as the] IANA function, VeriSign as the root zone content manager, and ZSK (Zone Signing Key) Administer, and the U.S. Department of Commerce NTIA are the three core bodies that are involved in the actual operational function of this.

IANA led a public consultation. It closed about – well, may 31<sup>st</sup> – and there's going to be another consultation. We don't have specific time on that, but it'll be a public consultation to take further inputs and comments. My personal expectation is that there will be some amount of information put out by the set of operational activities that says something before they actually do the next public consultation. But they may decide to hold a second public consultation before putting information out, but it's coming soon. Next slide.

So what's the root of the work party looking at? Well you can see the operational roles of both the zone signing key and the key signing key because they are two different organizations. What are the impacts? A bit of description about the motivation for doing the rollover of the key signing key.

What are the risks? Because there's always risks associated with something like this. And the mechanisms available for it. There's two basic mechanisms. One is automated and one's really basically a manual

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mechanism for doing rollovers. What are the impacts of those two sets of mechanisms?

And are there other technical impacts? The DNS response size consideration is something that we are examining and we'll have more to say on that particular issue, but because of the nature of DNS and the DNS queries and limitations of mailboxes and IPv6 and things of that nature. Next.

So the Work Party will produce a full document as a Work Party and in accordance with the normal SSAC procedures, once the Work Party has completed their document, then it goes to the full SSAC. The full SSAC does a review, can modify, can decide that it's not worthy of publication and not publish anything, can add recommendations, change the recommendations.

So the step that we're at is trying to complete the document within the Work Party, then turn it over to the full SSAC and then the full SSAC will decide what actually happens with the document. Next.

PATRIK FALSTROM:

Thank you very much. Any questions? The question is what the timeframe is.

RUSS MUNDY:

The timeframe. We do not have an explicit schedule. Personally, as the Work Party Co-Chair with Matt Larson, I want to get it finished and out as soon as we can. I'm personally hoping we will have it published before the next meeting – the next ICANN meeting – and sooner if

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possible. I would like to target within a month to six weeks, but that's just me. That's no commitment or prediction.

PATRIK FALSTROM:

Any other questions? In that case, let's move to the next work party and that is the Abuse of the DNS and I asked Merike Kaeo to present.

MERIKE KAEO:

Good morning. I'm Merike Kaeo. Next slide, please. So the objective of this work party to bring renewed focus on the issue of DNS amplification attacks and also as we look at work that SSAC has done, some documents that have been written over ten years ago, we find that some of these recommendations have not been implemented. So we want to bring renewed focus and also update on some of the current situations.

The targeted audience for this work is primarily DNS operators, both [authoritative and recursive] operators and both in the ISP and the enterprise space. As a side effect really, network operators in general also will hopefully read this document because it pertains to some of their responsibilities.

And the goal is to highlight the current ongoing problems with the increased scope of DNS amplification attacks. We reference two pieces of work, specifically SSAC 004 and 008, which are recommendations that we feel really should be followed. We also will enumerate irresponsible behaviors which are causing this Internet responsibility – instability rather.



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And the irresponsible behaviors really talks about the fact that people are not implementing these best current practice to help secure the DNS infrastructure. We also will provide updated recommendations to foster greater DNS infrastructure stability. Next slide, please.

The primary issues that we are discussing are the increased scale and impacts of attacks, the factors that make these amplification attacks possible, prior work on mitigation techniques, and we also have recommended steps to address unresolved critical issues. Next slide, please.

So what we're focusing on are steps that DNS and network operators should take. One of them is how to resolve the issues that make such large scale [inaudible] service attacks possible. How do we prevent networks spoofs to the greatest extent possible? And where are network operators and DNS operators, what can they do?

To identify and manage and inadvertently open recursive resolvers and close them. So what tools, what mechanisms, are available and how do people recognize them? And also how to detect networks that deploy spoofable networks and run unmanaged open recursive resolvers, because you first have to be aware that the situation is occurring in your environment before you actually will take action to do something about it. Next slide, please.

So the next steps are that as soon as the document is finalized, as with what Russ had mentioned, in this work also, we will then send for the full SSAC for review. And the hope is that it will be approved and published. And when that happens, we will renew efforts to evangelize and socialize the importance of actually deploying best current practice

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on security measures for the overall Internet health and stability. Any questions?

**PATRIK FALSTROM:** You have to use the microphone because we have people remote and also to be able to do the transcription afterwards.

**JONATHAN ZOOK:** Of course. My name is Jonathan Zook and I'm from the Association for Competitive Technology. This is a little bit of a segue from Marilyn's comment. I'm inspired by the idea of evangelizing and socializing the importance of best practices and I'm wondering what the mechanisms are that are in place to do that, and if more is needed as more and more of these things need to be evangelized and socialized in a broader community, I guess I'm sort of asking a similar question which is whether or not anything new needs to happen.

Does there need to be an SSAC report on how to socialize the results of SSAC reports? How do we take you out of the shadows?

**MERIKE KAE0:** The intent is not that SSAC will by themselves socialize, but actually ICANN staff. And the security group within ICANN is already in process and has been for a couple of years of socializing, educating on security issues. So I expect that they will continue to do so.

And also, as we are actually making this work, the different constituents aware, especially during this meeting, our hope is that they will also be able to evangelize within their communities.

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JONATHAN ZOOK:

And I guess this is a follow up. Do you feel like that the processes that are in place are sufficient? I'm wondering, does the SSAC need to request specific feedback from ICANN on its advice similar to the way the GAC does now so that you know that things have been absorbed and accepted, and if not, why not? And should that process be more formalized than it has been to date?

PATRIK FALSTROM:

I can try to answer that. This is something that was pointed out already on the previous review also August 2<sup>nd</sup>, SSAC [Corporation]. One of the reasons why that tracking has been hard has also been just because we have not kept track of what kind of recommendation we did. And it's also the case that what our recommendations, our documents, has been a little bit fluffy, a little bit unclear what the actual – which means that evaluating whether it is the case that recommendations has been taken into account is not just a simple search in a text file or something.

So over the years [inaudible] and SSAC has been more clear on what recommendations we have, and also ICANN board has started to be more clear on how they take care of recommendations, which of course includes saying no we don't think anything has to be done, so nothing falls onto the floor.

That said, we have been looking at internally inside SSAC and we are not satisfied. Let me make that clear. We are not satisfied with the way our recommendations are followed up. But to be able to solve that problem, we at the same time know that both we and Board and others need to find, if nothing else, a mechanism that makes that easier and that is something that we have brought up and, for example, did bring

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up with the ATRT-2 team that this is something that is of concern, specifically when we see that certain recommendations either have not been taken into account, or now several years afterwards, there's a question of whether they were taken into account or not.

If it is the case that it is discovered that something actually should be taken into account, wait a second, maybe now three years afterwards it's not possible to implement that specific recommendation. And how do you resolve that kind of issue?

So we have sort of two different issues here. We have to find a way of making sure that it's better from today and forward, but we also have a cleaning process to look back and see if they were to try to detect whether there is something that is still to be done.

So just because all of those discussions happens, including with ATRT-2, I cannot answer your question whether that kind of more formal communication like other kinds of things like GAC. We don't know whether that is the solution for SSAC, but that we need to keep track of it better – that is something we know. Bruce?

[BRUCE]:

Yeah. Thanks, Patrick. I think yourself, Jonathan, and Marilyn raised an interesting issue about communication and engagement as it relates to these outcomes. I think the Board has tended to take action on things that are very clear and straightforward. So if it's a particular action, it might be related to IANA or it might be related to the operation of the root zone or it might be related to the contracts between ICANN and gTLD registries and registrars or the DNS SEC provisions, etc.

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But there's a lot of other things in the reports. For example, advice to registrants on how to protect themselves from domain hijacking. They're not directly contracted by ICANN. It's not something that ICANN can directly take action on. It's really something the community needs to think about.

Likewise, DNS resolvers. Many, many people operate DNS resolvers and they're not registries, registrars, or ICANN. So the question is, with those things that you can't directly control, how do you properly advise people and get that message out? I think the focus of engagement at ICANN has been more about telling people at a very high level who ICANN is, etc.

But there's not a lot of the next layer down that says now you know who ICANN is, what should we do about that? I often find those interactions with people where you could be meeting at a high level with a government official and you explain ICANN and that's fine, but that's it. It doesn't go to the next level down, which is what do we expect you to do about that.

PATRIK FALSTROM:

Merike, is there a comment directly on this?

MERIKE KAELO:

Yes. Just one comment pertaining to your question. Within this work party, we want to create some concise recommendations. And also, I don't want to preempt the recommendations but there is one that we're considering where we really are thinking through what kind of recommendation do we give for ICANN specifically?

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And so it needs to make sense, though, so that ICANN's constituency will actually be able to act on it. So we are very much thinking about this.

PATRICK FALSTROM: Thank you. Steven?

STEVE METALITZ: Related to this, do we know why these recommendations have not been implemented? From all the discussion here, it sounds as though the focus is that people don't know about them or don't understand them. But could there be other reasons why and has that been looked into?

PATRICK FALSTROM: As I said, in some cases of course there might be recommendations – okay, let me take a step back. Our reports are written by SSAC, which are recommendations. Those recommendations are given to other bodies that then read the report and draw their own conclusions.

By using that mechanism, we give full ability for people to completely ignore our recommendation. So I think in some cases, of course it might have been the case that people made a conscious decision to not follow the recommendation because when they read our report and draw a conclusion, they came to a different conclusion or they had other input and when they did their calculation, they came to a different solution. But they didn't record it. So we don't know why. Maybe this isn't a hypothetical situation, but I don't know. That situation could happen.

So do we know why that is the case? No, we don't. Merike?

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MERIKE KAE0: I was just going to make a comment that with this particular report we are actually trying to put some information in that will help people to actually implement some of the recommendations, because partly sometimes it's an education issue.

PATRIK FALSTROM: Dan?

DAN YORK: I guess a couple responses. But my main question, Merike, was what is the timeframe do you think this report will be out in?

MERIKE KAE0: We are striving to have it done at least by the end of the year at the latest, but again...

DAN YORK: I just wanted to say that the work that you outlined here, it certainly looks like we've had a lot of discussion within various different DNS related forums outside of ICANN around these kind of issues, around the amplification attacks and the issues there. And so I think this will be very welcome in those forums and certainly could be socialized, evangelized into those other areas and by those other areas.

As to the larger question, you asked about why are people not deploying things. This is just a general issue. I work for a group within the Internet Society focused on helping get accelerated deployment of IPv6, DNS SEC and we can talk long times about both of those. We can

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talk about routing issues and why people aren't using BCP 38. I mean, there's a lot of those different issues and I think we could come out with a long list of reasons why people don't [inaudible] security guidelines. In many cases, we just don't know exactly why. But there's a long list.

PATRIK FALSTROM:

Let me add a comment. As the Chair, I put myself to comment on [inaudible]. Let me just add one thing that I think it is important for you to know. When we started to look at specifically a follow up to SSAC 004, why people are not implemented it, we started work on an update of BCP 4 and the conclusion – correct me if I'm wrong – was basically we would say the same thing again. And the [inaudible], would that solve the problem? Probably not. That's why it's such a hard problem to actually try to [inaudible] understand. It's not understanding the problem [Erika's] working on in her Working Group. It's to understand what to write to get more traction this time.

That's why we [have] decided in SSAC that as we have SEC 4 everyone sort of knows about the problem, but it's not implemented. This has to take time also to produce the report, and that's also one of the reasons why we are a little bit careful with saying when we are done.

Then I have on the list Mikey, then you, and then Jonathan. Ram.

MERIKE KAEO:

Just one comment. I mean, we started this work early in the year and when the March events happened that created a very huge media focus on amplification attacks, I was extremely happy because I was like "great" because once this report comes out, people will actually



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recognize the relevance of it and hopefully there will be a better impetus to actually deploy these recommendations.

PATRIK FALSTROM: Mikey?

MIKEY O’CONNOR: I just want to add onto this specific issue and also the broader one. I think that one of the things that SSAC might consider in its process of writing reports is putting a section at the end that says, “Here’s who we need to tell pretty emphatically about this report.”

So, for example, on this issue you ought to be talking to the ISPs. That’s my constituency, since they have a little something to do with this. Not necessarily during the report, but during the rollout.

So I think that it’s incumbent on people when they write reports. I’m saving my monotone stunt for the—

PATRIK FALSTROM: Okay. We have many people on the call here, so please come to the point.

MIKEY O’CONNOR: But do please write a section of the report that says who needs to be informed and what do they need to do about it? An example is the one about the emergency action contact, which we drug out of one of your old reports during the IRTP. We had to find it. Nobody told the GNSO.

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PATRICK FALSTROM: Okay. Time's up.

UNIDENTIFIED FEMALE: So my comment is similar to what Mikey has mentioned. If it's clear, who this report is targeted and you want to distribute this information, then it would be really, really helpful for constituencies within the ICANN to help with the outreach or maybe perhaps ICANN staff themselves can do something about it.

[JULIE HEDLUND]: Can you tell us who you are for the transcript?

IZUMI OKUTANI: For the transcript, Izumi Okutani for JPNIC.

PATRICK FALSTROM: Jonathan?

JONATHAN ZOOK: I know we're pressed for time and I know this specific discussion is becoming a generalized one. But I want to make the same recommendation based on Bruce's comment which is categorized. "Here's the things that we think ICANN itself can unilaterally do and this is what we hope and expect them to do."

But even if one of those things is making sure that some things evangelize through the evangelization arm of ICANN, then that might still be something that ICANN could do.

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I guess I would look for things that you could decide to do autonomously without a PDP, without structural changes to ICANN to request funding for PR, change the structure, etc. I think it's just time to be more aggressive generally in terms of how your advice is taken in and received and tracked. So that's just my recommendation. Thank you.

PATRIK FALSTROM: Thank you for the support. Ram?

RAM MOHAN: Thank you. The example is very helpful in better structuring our reports and our advice. To the specific issue of recommendations being implemented, I just wanted to report back to you. At the ICANN Board level, one of the things that we do work very hard is to – and I do that as the liaison, the next liaisons will be doing the same thing – is to work with staff and with Board members to convert our advice into actionable directives to staff.

So you will have seen over the last few years reports coming out from SSAC and then shortly thereafter Board resolutions that attempt to implement them and we're trying to continue to do that and I'll keep our recommendations actionable.

CHRIS CHAPLOW: Thanks. Chris Chaplow, Business Constituency. SSAC 44, A Registrant Guide to Protecting Domain Name Registration Accounts, is an excellent report. It's written for the layman. It's only got one problem – it looks

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like an SSAC report and it needs to go to the communications department to be turned into something that loos palatable, and Business Constituency and the other constituencies can then hand that out to members, to small and large businesses and individuals alike. Thank you.

PATRIK FALSTROM: Did you want to say something? Did I miss you when you were in the [inaudible]?

MARILYN CADE: You did.

PATRIK FALSTROM: Yes, that's what I thought.

MARILYN CADE: I really want to reinforce the critical importance of the engagement of the CSO team. I see Patrick here. The reason I am mentioning it is I am going to say I just got back from Lagos, Nigeria. We had great support from the CSO team on doing a DNS SEC workshop, but that is not enough. We have a very strong highly interested business user community. They are not and are not going to become contracted parties. They are not the DNS sector. They are building and running the Internet.

And some of these things need to go into the portfolio of the CSO because this is the kind of thing that that training done by the CSO is

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really going to make a difference. It's going to reach those ISPs, web hosters, and small businesses in developing countries and that's probably going to be a budget opportunity.

**PATRIK FALSTROM:** Anything else? In that case, even though we sort of floated away into, as you pointed out, Jonathan, a more general discussion, now we have some time for general questions if there's anyone that has any. More general discussion, other topics that we might work on. Maybe there might be some SSAC members that would like to point something out. Robert, Jonathan, Marilyn.

**[ROBERT]:** I just wanted to build on something that you mentioned, Patrik, in regards to the Internet Governance Forum. This issue of the report that Marike mentioned is going to be one of the topics for discussion at the Internet governance forum that we have planned in a more broader context. So that's another space in terms of for evangelation and getting out to the community that we're doing as well, and we had planned that session months before this discussion took place.

**PATRIK FALSTROM:** Jonathan?

**JONATHAN ZOOK:** So to take the general and make it more specific, I guess 59 seems to be, as you say, a reiteration of previous recommendations to some extent and you pondered whether or not that was a sufficient way to draw

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attention to things by reissuing the same advice. Do you have a sense of what the implementation strategy is from ICANN for those recommendations related to domain collisions, dotless domains, and some of the things that – what’s your sense of how that’s being taken in and absorbed at this point?

PATRIK FALSTROM:

I think what I know is what was presented yesterday at the update on Security, Stability, Resilience from ICANN. So those reports are received by ICANN and we are asked to, just like with many other things, but specifically, for example, the name collision issues. We are asked to explicitly monitor what’s going on there to be able to write reports if you find that being needed and report back.

So what I’m saying is I cannot answer your question because I don’t feel your question is targeted to us at this point in time, because we are not holding the token for action.

JONATHAN ZOOK:

Okay. Let me try to target it better then. Do you feel that that study and the work surrounding it is sufficient reaction to the advice that you’ve given on this issue?

PATRIK FALSTROM:

That is something that we are currently evaluating, so we don’t know yet.

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JONATHAN ZOOK:                    Okay.

PATRICK FALSTROM:                Marilyn?

MARILYN CADE:                    I think my question builds on the underlying points that Jonathan was making. I asked to see the Terms of Reference for the dotless domain study and to my amazement learned that the Terms of Reference for that study were not actually, in my view, fully under the direction of the SSAC.

I'm interested in the exchange and inter-relationship between the SSAC related to its reports and recommendations and how the staff then takes that and develops the Terms of Reference and goes out and procures a study.

So I gather from your response that you may not be able to say anything more about that, but I'm going to make a point. I would assume that Terms of Reference for studies of his nature should be put out for public comment. My observation is sometimes the Terms of Reference seem to be so narrowly written that the community's not able to understand fully the risks that are potentially emerging in those studies.

PATRICK FALSTROM:                Regarding dotless domain, we wrote a report and that resulted in a number of Board resolutions. One of the Board resolution we're [inaudible] at ICANN staff to conduct this study regarding dotless domains. I tried to find actually a Board resolution at the moment. But

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then after a Board [resolution] request ICANN staff to consult a study, there are – in some cases, the Board asks staff to work in cooperation with the SSAC, and in that case, I think we have good cooperation. But in some cases, the Board asks staff to conduct a study and then SSAC to sort of look at what’s happening or look at the same problem, and then we are not cooperating explicitly, but sometimes we do have liaison on both the Security Team and others.

Exactly how it was here. It’s Thursday of an ICANN week and I need to go back. I don’t have the actual Board resolution at the top of my head. So I do see the [traces] or requests from ICANN Board for staff to issue a study on dotless domain given the feedback and the public comment period on the SSAC report. Ram, maybe you remember better.

RAM MOHAN:

Yeah, I do. In fact, on dotless domains, the Board actually made two resolutions. One was to simply acknowledge the report, but the second directed ICANN staff to consult with relevant communities regarding implementation of the resolution of recommendations and no later than September 1 of last year to provide a briefing paper to the board which details technical policy and legal issues that may arise as a result of implementing SAC 53. So that was what the Board actually resolved a year ago – more than a year ago.

PAUL FOODY:

The dotless domain things is an inevitability. We’ve been using dotless domains to a large degree ever since dot-com came out and what’s



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happened is the various browsers have interpreted that and they said, well, this is a default dot-com.

I've spoken to [inaudible] about why dotless domains can't happen and he's explained in some detail there's all sorts of problems in terms of the hardware. But surely, is it not possible for SSAC to come up with some sort of software fix so that the inevitability of dotless domains can be used without causing problems? Maybe even link it to the Trademark Clearing so that when somebody puts in whatever term they're going to put in, it doesn't cause the problems that you guys are now foreseeing.

UNIDENTIFIED MALE:

Clearly my explanation wasn't satisfactory.

PATRIK FALSTROM:

So I think this is something that I'm happy to talk to you afterwards because the issues that we point out are pretty serious combinations of protocol specifications and implementation of those protocols. And regarding the actual protocol specifications, the Internet Architecture Board released a report a couple of weeks ago or a week ago or three, where they explain the various issues related to dotless domains from a protocol standpoint.

This implies that one of the findings that we had in SSAC is that implementations in software and hardware that do comply with the existing standards for the Internet. That is where we have the problem. It is not the case—

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So to be able to support dotless domains in the ways that we lay out in our report, you must implement software in a way that violates Internet protocol specifications. That is why making the change or coming with the recommendations that you're talking about is extremely complicated. That's also something that we are talking about – how long time it would take to replace all the software and hardware on the Internet that do comply with [stay] specifications.

PAUL FOODY:

So given its inevitable people seeing closed generics which will be distinguished from words only by the dot, they will interpret that as the word. Deloitte have had .deloitte as their logo for the past five years or more and nobody calls it "Dot Deloitte" and [inaudible] same problem. Is there no way that you can say that the requirement for closed generics is simply a requirement that is going to endanger the root to such a degree that you've got to just refuse them.

PATRIK FALSTROM:

No. I think, from our perspective and technical standpoint, you're mixing up multiple things and I think to talk about at the same time is not really possible. But from a technical standpoint as we lay it out in our report, to have the domain name – or it's not even a domain name. You actually use a term or a word without a dot that you are using in your operating system.

In many cases, whatever you are typing in, because it doesn't include a dot, it does not even hit the DNS and that is among the worst implications.

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Now time is up and there is a new session that is coming up here and we need to, some of us, go to different rooms. So thank you very much. For coming and I hereby declare the meeting closed.

[ END OF AUDIO ]