

Transcript
DNS Security and Stability Analysis Working Group (DSSA WG)
22 September 2011 at 13:00 UTC

Note: The following is the output of transcribing from an audio recording of the DNS Security and Stability Analysis Working Group (DSSA WG) teleconference on 22 September 2011 at 13:00 UTC. . Although the transcription is largely accurate, in some cases it is incomplete or inaccurate due to inaudible passages or transcription errors. It is posted as an aid to understanding the proceedings at the meeting, but should not be treated as an authoritative record. The audio is also available at:<http://audio.icann.org/gnso/gnso-dssa-20110922-en.mp3> On page: <http://gnso.icann.org/calendar/#sep> (transcripts and recordings are found on the calendar page)

Attendees on the call:

At Large Members

- Olivier Crépin-Leblond
- John Levine
- Andre Thompson

ccNSO Members

- Takayasu Matsuura, .jp
- Katrina Sasaki, .lv

GNSO Members

- Greg Aaron – (RySG)
- Scott McCormick (CBUC)
- Mikey O'Connor – (CBUC) (co-chair)
- Rafik Dammak, GNSO – disconnected after roll call
- Rossella Mattioli – (NCSG) – on adobe connect

SSAC

- Jim Galvin (SSAC)

ICANN Staff:

Glen de Saint Géry

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Apologies:

Jörg Schweiger, .de (co-chair)
Cheryl Langdon-Orr (ALAC)
Bart Boswinkel
Wim Degezelle, CENTR
Don Blumenthal – (RySG)

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Rick Wilhelm, Network Solutions
Arturo Servin (LACNIC)
Carlos Martinez (LACNIC)
Sean Copeland, .vi
Mark Kusters (SSAC)
Patrick Vande Walle – At large
Chris Wright, .au
George Asare-Sakyi – (NCSG)
Adam Palmer – (CBUC)
Edmon Chung -At Large
Andrew de la Haye (NRO Member) - for the next 4 weeks
Mohamed El Bashir (At-Large)
David Conrad (SSAC)

Coordinator: Welcome and thank you for standing by. I would like to remind you that the conference call is being recorded. You may begin.

(Natalie): All right, thank you very much (Tanya). Good morning, good afternoon and good evening. This is the (desa) call on the 22nd of September, 2011. On the call today we have Mikey O'Connor, Rafik Dammak, Andre Thompson, Olivier Crépin-Leblond, Scott McCormick, Katrina Sataki, (unintelligible) and Greg Aaron.

On staff we have Glen Desaintgery, Julie Hedlund and myself. And we also have apologies from Cheryl Langdon-Orr, (Ulrich Scheiger), Don Blumenthal, (Vin Degavella) and Bart Boswinkel. Thank you very much and over to you.

Mikey O'Connor: Thanks (Natalie). You may know (Natalie)'s voice, some of you. (Natalie) has often helped us out on these calls when she was part of the team at Verizon and it's great to have you with us.

We'll take a moment to give people a chance to tell us about updates to their statement of interest and then we'll take Olivier's comments. All right, Olivier, go ahead.

Olivier Crépin-Leblond: Thank you Mikey. Olivier Crépin-Leblond for the transcript record and also speaking for the transcript record on the chat, (Rebecca Machioli) has mentioned she is on Adobe and she was not mentioned on the roll call. Thank you.

Mikey O'Connor: Ah, thanks for catching that. That's evidence of Mikey not keeping track of the whole screen at once. All right, we're going to continue our conversation about what's in and what's out of scope. But I'm going to do the same thing. I'm going to reverse the agenda and this time dang-nabit, I don't care how few people are on the call. We're going to accept or not Greg's proposed refinement to our ch- to the scope part of our charter and so I'm going to just share that.

I should've had this teed up. I forgot. Oh, hang on just a minute. But while I'm doing that, if anybody would like to comment about that, would like to get us to the point where we're - there it is. I knew I put it somewhere. Right there. There's Greg's thing.

Can people read that okay? If not I can make it bigger but you'll have to then scroll around a little bit. This is - just to set the stage, this has been out on the list for - I don't know - three weeks I think. Maybe a little longer than that.

It's been discussed on our call two weeks ago and at that time there was a sense that this was fine. But we have a rule that we like to review things on

two separate calls to give people a chance to comment. I put two calls out to the list, not gotten a whole lot of conversation.

So unless there's late breaking concern or change, I'd like to put this to the group for sort of the final nod and then if we have approval, I'll put it out on the Wiki as one of our consensus documents. So this is the time to have this conversation and I'm looking for comments.

Not hearing any, last chance. Going once, going twice. I'm getting an, "It's fine," from (Andre) and I think we'll call this a thumbs up. Okay, that's that. Thanks folks. I'm going to close this if I can remember how. No, okay. Back to the - okay.

Continuing on, this is - just for those of you who haven't seen this before, the process we're going through is we're taking a look at major threats categories that we came up with in Singapore and since then. And we're just using that refined definition of scope to decide which things are in and out of scope.

And the ones that are green are ones that we've looked at and decided are in scope and the ones that are red are ones that we decided are out of scope or perhaps in some cases, along and sort of subcategories of another one.

And the ones that are white in the first two are ones that are at sometime going to circle back around and discuss a little be more. So today, we're working on this one. Oops, clicking on the wrong version on the screen. And I'm going to o- I'm going to make this a little bigger so that you can see it better.

I wanted you to have the whole picture for just a minute. And all of this is out on the Web site. Probably the easiest version of this to see is the PDF version that's out because that shows the tree and you can expand and contract it and you can look at the colors and all that.

So in the indirect category, we have five that we came up with at Singapore and the email spam one is a little bit different than you might think. This isn't saying that spam is a threat to the DNS. What this is saying is that as we transition from IP4 to IPV6, this notion that spammers jumping from IP to IP may create in a sense sort of a volume related problem for the DNS where a lot of lookups may be unintentional ones.

And maybe some of the DNS caching processes may cause instability. This is, I think, pretty much a theoretical view. This was one that - oh God, I just lost his name - but a member of the DSSA and a pretty smart guy (about spam) was talking about.

So I guess with that introduction, what do people think? Is this an in scope, an out of scope, discuss later. Yes, (John Levine). Thanks Olivier for reminding me. (John) was pretty on top of this one. I'd be inclined to leave it in at least to discuss but I'm not - I don't have strong opinions about this myself. I'd like to hear from other people.

Hearing silence which my trolling with a tentative in, meets with people's approval and so I'll go ahead and do that unless maybe that'll get a bite out of somebody. I think some of these other ones are less likely candidates. The next one that came up as an indirect threat was the notion of front running.

And I pasted the - oops, sorry - pasted the definition from SAC22 in there. I'm not seeing this as a - by our scope definition as a threat to the DNS. I see it as a problem at perhaps the second level and even there, there was controversy as to whether this is happening much at all.

And so, again, I guess what I would do is tentatively propose out of scope for this one and see if anybody agrees or disagrees. I'm going to open up one of these windows because I just realized that I'm not seeing everybody.

Well since the agenda's actually the same as the last several weeks, I'm going to cover it up. Greg is agreeing. So I think we'll get - I think we'll put this one out of scope. And I'm going to move through these fairly quickly because you may think we're done but I have news for you.

We've also got a whole huge pile of vulnerabilities that we've got to take a look at and I want to try and get started at that today as well. So let's put this one out of scope.

I think the same goes for registration gro- abuse cyber squatting. Second level problem for sure. Oh, I should probably write our rationale. Hang on. Oops. Problem at the second.

We certainly know that cyber squatting happens but I'm thinking that other than that the rationale is pretty similar, that there's a second level kind of problem. Oh, and (John)'s on the call. Cool. Did you just join us (John)? If I - or did I just miss that you were there? Anyway...

(John Levine): I've been here for ten minutes.

Mikey O'Connor: Okay. Well, sorry I spaced out your name. I'm glad to have you here. I think I'll give this one an out of scope vote. Again, looking for howls of outrage. Next one is - again, I think, you know, this is a fairly old problem. Note the number on the SAC report. It's (fact) number 3. That makes it old by definition.

I think the one thing that sort of intrigued me about this is the randomizing of who is data and I'm not sure that that's a threat to the DNS per se. But I put it in there to give you a chance to take a look at it and see what you think.

Greg and others, you can speak. This doesn't have to be a monologue. Greg is typing in the chat for those of you listening to the transcript. I think he's going to freeze but who knows. (John), go ahead.

(John Levine): I mean, I agree. I mean, it's not a DNS threat. It's also something the ITF is currently scratching their head about so I think it's - there's no need for us to worry about it at this point.

Mikey O'Connor: Yes. Oh well that's a good thing. And I'll add that to the scope statement. Greg is saying it's a policy issue but not a threat to the DNS. I agree with that too. All right. So let me add those comments. Policy issue. It's time to monitor that. Are you on that one (John)? I would assume you are.

(John Levine): Yes.

Mikey O'Connor: You want to kind of be our informal liaison? And if anything that you think applies to this group comes out of that, circle back and let us know.

(John Levine): I'm happy to do so but I would be astonished if anything - if your - anything's worth reporting.

Mikey O'Connor: Yes, I think you're right. But you never know. In fact, stranger things have happened. Okay, so we're going to take this one and - out of scope category. Apologize for how slow that is. The program I use makes me click about a million times to change color.

And the final one is pretty similar. And so I think I'll give it the same status which is out of scope for pretty much the same reasons. Okay, so way to go us. We just finished a big deliverable or at least we've done a first pass of a big deliverable.

I think what I will do, if it's all right with you people, I'll circulate this set of decisions to the list in a somewhat easier to read format and tee up two discussions. One is we need to circle back to the ones that we haven't decided yet. There're a few of them in this. And the other thing we need to do

is give people a heads up that we have a tentative first pass at this and let people look at it, react on the list, et cetera.

But wait. There's more. There's a whole other pile of stuff to look at that I want to start today and this is a fairly arbitrary separation by your scribe - that would be me - between things that are threats and things that are vulnerabilities.

Now vulnerabilities is not in our charter. It's not called out by name. And I want to sort of take a moment to take a look at this whole list and see whether any of these things should be in scope for our analysis.

It could be that this whole pile is out of scope because they're vulnerabilities, not threats. On the other hand, our job is really to take a look at the security and stability of the DNS and if any of these things strike us as things that we should look at and analyze, then I think we should go through the same exercise that we just did with threats and decide which of these are in or out of scope. So with that, Olivier, do you want to kick us off?

Olivier Crépin-Leblond: Thank you Mikey. Olivier for the transcript. On the charter, 2.1C mentions that within the charter is the gaps, if any, and the current security response to DNS issues. Would that be a kind of vulnerability?

Mikey O'Connor: Yes, that's true. That's a pretty (fact) for this kind of discussion because if nothing else, what we could do is start...

Olivier Crépin-Leblond: I mean, I understand it speaks of the response in there. It doesn't speak of the actual threat prior to response.

Mikey O'Connor: Right.

Olivier Crépin-Leblond: But in some ways, there is a vulnerability there.

Mikey O'Connor: Yes. And I think that one of the things that we could do is just as many of the other reports that we've looked at in terms of the background material, we could, if nothing else, start compiling a list of things that people should be aware of and places that they could go look.

Some of these are pretty much standard best practices that you can find in (ISO) 27000 and PCI payment card industry standards. And we could start shuffling some of these into those piles.

But I also think some of these might be worthy of analysis. So I don't want to just put this whole pile out of scope without a whimper. And my inclination is to essentially go through the same exercise we just did on the threats and take a look at each one.

But I - before we do that, I want to give someone the chance to say, "No, no. This is totally out of scope," and we can have the discussion at that level. But I'm not hearing anybody saying that. So unless somebody wants to throw their body on the tracks, at this point, why don't we just quickly try to go through these and do the same in or out of scope discussion that we had on threats.

We might be able to get through most of these today. And if not today, certainly I think one more call would do it. And then we can essentially publish our first draft of the major deliverable that we are teed up to provide in the (car), so I - you know, I'm feeling pretty good about our progress and I think we all deserve a pat on the back by now.

So here we go. Let me zoom in a little bit and you can see better. One of the things that came - this came out in Singapore and there are lots more. Let me see if I - I should've done this before I started the call. But there are a whole bunch of - let me just get these down so that you can see the whole list.

There may be more. What we started categorizing is business or technical process vulnerabilities and over on the far right you can see that, you know, that some of these are probably in and out of scope. You know, failure to renew a domain name registration probably is not in scope unless it is a domain name registration for a key piece of DNS infrastructure.

And so some of these are probably out of scope for the same reason that - on the other things that we talked about, you know, they happen more at the second level and are not so much a threat to the DNS clearly if the servers that were authoritative on TLDs weren't renewed, that would be a problem.

But I'm not sure that that's a terribly likely scenario. So there's a little prelude. What do people think about this as a topic of conversation? (Jim), go ahead.

(Jim): Yes, so I'm sorry I joined late so I missed the early discussion. But I'll just quickly say, we've - it's what you said Mikey. I wouldn't take these things out as non-threats but, you know, they are threats to stability to the extent that they affect the TLD.

And I think as long as we put them in context, then that's a good thing. They might not be significant threats, as you say, but I think it would be inappropriate to overlook them entirely.

Mikey O'Connor: Okay. So I - what I'm - doing myself. I click on - I've got two copies of this on my screen. I've got the version that actually works and I've got the chat room. And I click on that and nothing happens. So if we were to talk scope, and say that this is in scope, but that we need to set the context appropriately...

(Jim): So this is (Jim) again. So, yes, we need to set the context and probably need to, you know, wordsmith some of these things. I mean, there's - these things are worded in such a way that they seem to more directly apply to second level names.

So, you know, I'm just looking up here at the second one up here, this transfer of the domain, or change and - change in delegation. We just need to add some extra words in there and - for all of these things. We need to take a step back and look at them as a concept and adjust the words for the scope, so suggest that they apply to a TLD, not the second level domain.

Mikey O'Connor: Yes. Sounds good to me. Any other thoughts from folks on this?

(Jim): Okay, so we'll put this one in scope for that reason. Carry on to the next. Infrastructure vulnera- oh, dang it. I should - I'm really sorry that these pop open like that. Greg, go ahead.

Greg Aaron: So were you saying that all of the business and technical process vulnerabilities were in scope?

Mikey O'Connor: No per se. I think we could do one of two things. We could either leave this one this way and send that list out later or we could send that list out now because I think some of these probably are not.

Greg Aaron: (You) might as well get rid of them now I suggest.

Mikey O'Connor: Okay, why don't we quickly look for candidates to remove?

Greg Aaron: Well transfer policy is about second level domains. So I think that's out.

Mikey O'Connor: Let me take that one out. Put a little scope statement in there. No, I better write that better. Hold on. Okay.

Greg Aaron: Is the second one also about second level individual domains?

Mikey O'Connor: I think that this is one of those ones that (Jim) is talking about, that it was - this - a phrase was probably written with that in mind in SAC49, but that a change in delegation - well, I don't know. I don't know.

(Jim): So this is (Jim).

Greg Aaron: I can't - I'd have to go back to SAC49.

Mikey O'Connor: Yes.

Greg Aaron: But I think what this is, is if you have a domain name and you're transferring it or it's in a, you know, some sort of an EPB status where you can't change the name servers on it, that's the problem.

Mikey O'Connor: Yes.

Greg Aaron: But that's a second level issue.

Mikey O'Connor: I'm going to defer to others who are smarter about this. Greg - or (Jim), did you want to...

(Jim): Yes, Greg is right with - I mean, with respect to what he is saying, I mean, the lockout situation and what's going on there. I think just what I was thinking is transfer generally is an issue that deserves special attention when it's a TLD and delegation.

So there's a potential for a stability issue there which is generally dealt with, you know, process and the way that ICANN would vet those kinds of changes. But the issue which is described here and the reference to SAC49 is exactly what Greg said and it has not referred directly to, you know, the context in which we're trying to work here.

So this is an example of one of those things where I think we just want to step back and, you know, (ease) out the concept which is being stated here and apply it to a TLD.

Greg Aaron: This is Greg.

Mikey O'Connor: Go ahead Greg.

Greg Aaron: I'm looking at SAC49 right now. It's circumstances that result in the loss or disruption of domain name resolution that temporarily eliminate a domain name from the Internet. And it's about hosting. The failure of third party DNS hosting providers. So there's a fair amount in here. I'm -- (Jim) do you recall - is there anything that would affect the TLD itself?

(Jim): Oh yes, the, you know, a transfer or a redelegation is not properly handled. I mean that's the threat, that's the vulnerability. I mean that's just standard DNS, you know, operational stuff.

So for me that's the stability issue and that's just something - that's something which is managed by ICANN in its procedures as it affects these kinds of changes.

So what's described here and the way it's described as you say is not directly applicable. We need to - we need to fix this so that it applies in the right way to a TLD.

Greg Aaron: So you're talking about the - the registry is not functioning properly or it's not following an appropriate technical regime, the performing updates and disseminating DNS, that kind of stuff?

(Jim): No, this is about change of delegation of the DNS for a TLD of the authoritative services for a TLD. I mean that's a change which is moderated, facilitated by ICANN, right? Because they moderate and facilitate all route zone changes.

Greg Aaron: Okay. So that's actually something different than SAC-49?

(Jim): Yes.

Mikey O'Connor: Yes. I agree.

Greg Aaron: Okay, okay. Maybe...

Mikey O'Connor: And I think that's where (Jim) is headed is that, you know, the concept is right but the words are wrong that this is one that we need to reword.

Greg Aaron: Maybe we shouldn't reference SAC-49 and just rewrite it then.

Mikey O'Connor: Yes, and I think, I think that's what, you know, that's where I was headed with this one.

Greg Aaron: Good job, I understand. Okay, thanks.

Mikey O'Connor: Something like that. So if you look at those bullets, does this capture the nuance of what we're talking about here, so the three weeks from now and we come back we don't forget. Anything in there you want to...

(Jim): This is (Jim). It does for me now, but whether it will or not in three weeks I guess we'll find out.

Mikey O'Connor: You know that's the - that's the trouble. Well, you know, usually, if I have a few hints, I can kind of reconstruct it and so we'll keep our fingers crossed. So I'm going to leave this one in the scope as -- and I think just to fix this a little bit. Do that, all right.

Well, I think then we are not going to get through this today but this is a very good discussion. So I'm fine with this. Insufficient identity verification, I apologize SAC-7 and I haven't a clue what the concept was there. But I think it's the same notion that probably what they're talking about in SAC-7 is not quite right.

But again, this may be one of the ones that we want to take a look at rewriting. Is anybody just got SAC-7 right at the tip of their brain and can remember what that's all about? We could leave it and research it later.

I hadn't planned to go down this long, so for the next call I could have some notes out there so that we have a better sense of what was going on. Anyway, maybe we'd leave this one for us to discuss later rather than trying to make it up on the fly.

The next one by -- for this list is coming - these words are coming from that registry failover document. And again I just stole a whole bunch of words from there.

This is clearly aimed at the DNS level, SAC-7 is registrar automation (Jim), is that what you're comment is getting at?

(Jim): SAC-7, no. SAC-7 is about the main hijacking.

Mikey O'Connor: Oh.

(Jim): And I was actually pulling it up to look at it to see if I can figure out in my mind here how to relate it to what we're doing here. But we can come back to that. The registry failover, again, you know, this becomes in the same way that the delegation issue is an issue.

We just need to put this in concept here in context. Obviously, this is something which is - it's a vulnerability to the DNS to the extent that a TLD failed and this whole thing is a process, this document that you're referencing here was SSAC commenting on ICANN's plans for how to manage the failover of a registry.

And what it would do in terms of, you know, trying to affect that process. And I mean that's a - one of the elements of a registry failover is the DNS services that it provides and so that's what this is part of.

That's probably the piece which we care about in this context is that the DNS services are critical to a registry failing and maintaining those while we affect some kind of transition is really the -- what we need for registrants.

And it's a threat to the vulnerability - threat to the stability of the overall system.

Mikey O'Connor: Okay. So we'll do the same kind of thing here unless somebody throws their hand up and says, "No. That we need to rework this." And put it in scope. A new domain registration was primarily -- this is clearly about the second level.

Are their domain names if not renewed would break TLDs? That would be in that case it seems to me it's the same sort of thing that we've been talking about with the other ones.

(Jim): Actually, I think renewal is probably - it's not clear to me that TLDs renew to be honest with you. That's...

Mikey O'Connor: Yes.

(Jim): ...an interesting piece of detail process that I'm not certain about. I don't know that ICANN does the same thing with TLDs that we impose on registrars with respect to registrants at the second level.

You know, it occurs to me that this is probably out of scope because I don't think it applies. But it's the detail that I don't know the answer to. Oh, well Greg is talking. Greg is typing in the chat room.

What Greg is talking about is interesting is contracts are an issue for gTLDs you do have contractual relationships and so there is a renewal process that goes on there.

So maybe that's the way this needs to be characterized. It's not about a renewal of a domain name although I suppose implicitly renewing a contract renews that TLD name.

Yes, so - so we just - this just needs a little wordsmithing here to put it in the right context. So at least for gTLDs, ccTLDs again are a different kind of thing. So you have a similar kind of issue there but it's not contractual.

Mikey O'Connor: I'm stealing stuff right out of the chat. So put these in here again as reminders. All right, well, so we'll leave it in scope for now and maybe we take out renew and so figure out how to wordsmith this.

It's this phrase: failure or...

(Jim): Call it a delegation, failure to renew a delegation.

Mikey O'Connor: Yes.

(Jim): And then you should, under your scope you should add one other sentence there about, you know, there are of course indifferences between ccTLDs and TLDs. We have to define a way to say something about ccTLDs in this context too.

Mikey O'Connor: Okay. Oh, okay just the whole -- Greg you're saying that this box here just call it redelegations? Those of you listening to the transcript, I will tell you this is -- I am having a great time just love this call. I can't spell for shit, sorry.

Redelegation is confused. Okay. Okay, so maybe take this stuff out, just turn this into taking things out. What we're going to confuse ourselves if we leave

it in. But we'll do it like that. We'll have to -- having done that -- we'll have to come up with some content but that's fine, we can handle it.

Okay, so we're going to put that in scope. Registrar automation patterns behaviors. Boy, that's - that's straight out of Singapore. If anybody remembers from the Singapore meeting what we were talking about on this one.

TLD regulation or redelegation you got it Greg. I think I'm going to tentatively put this one out of scope unless somebody can come up with an example of a registrar automation pattern or behavior that would impact a TLD.

In that, I can imagine an error where a registrar accidentally miss configured something and perhaps somehow creates some sort of lapping behavior or something like that.

But it's kind of a stretch for me. Does anybody got a problem if I take that one out of scope for now? (Rosella) says out. I'm with her. Okay.

Nonrenewal domain name associated with a DNS name server is the - it's sort of a repeat in a way of the one we were talking about before.

(Jim): No, so this is (Jim).

Mikey O'Connor: Go ahead (Jim).

(Jim): It is actually a different problem. The one up top is talking about the - the delegation and it's about the - the service provider, the registry actually managing its own delegation.

In this case, it's about the name server that is used to support it. And if you're using (unintelligible) name server then a threat that you have to your service is that domain name going away.

Now this again is one of these things which at the root level is probably -- you'd like to think it's managed a little better than average. But, you know, it's an issue, it's certainly a potential threat to the stability of the TLD as a whole.

So Greg is talking about it being a second level issue. It is a second level issue to the extent that the name that we're talking about here is a second level name.

But it affects the TLD itself directly and it's an issue if that name is out of (BELEWAC). So if it's outside of the control of the TLD itself. You know, we have two people I think in the chat room.

Mikey O'Connor: And Mikey. Wait a minute people let me get some of this on the transcript. Hey, Greg come up and talk to us instead of typing this. I mean it's great that you're typing because then I can cut and paste stuff, but I think we need to - we need to get something on the transcript here. He's still typing and (Rosella) I think is perhaps unable to speak.

If it can affect the TLD for me it's in.

Oh Greg, he's recharging his phone, you rascal. Okay, so and (Rosella) is just on adobe. (Rosella) gets a pass but that's a pretty lame excuse Greg.

Okay, let's circle back and describe this better. (Jim) I -- if you could take me through the scenario again a little more slowly so I can capture it, that would be great.

It's a second level name that's out of the control of the...

(Jim): Yes.

Mikey O'Connor: ...registry.

(Jim): The threat here is if the name of the name server that's used for the TLD authoritative services is outside of the control meaning it's a out (unintelligible) which for that TLD, then they are at risk of that name not renewing and disappearing.

Mikey O'Connor: So it's that, it's that name that's...

(Jim): Correct.

Mikey O'Connor: ...out of control...

(Jim): Right.

Mikey O'Connor: ...that's the problem. Now hey Greg's got his hand up. Oh, good for you Greg, go ahead.

Greg Aaron: I found another phone thank you. Okay, an example would be let's say that you have a .UK name but you use hostgator for your hosting, right? So your name server is something like NS1.hostgator.com and your domain that you're hosting is godsavedthequeen.co.uk. Okay.

Mikey O'Connor: Right.

Greg Aaron: If hostgator forgets to renew their domain name or something bad happens to hostgator.com, the hosting will fail basically because hostgator goes - is removed from his own file for example.

And the domain name is going to go dark in .UK. Now and that's kind of what (Jim) is referring to as kind of an out of (BELEWAC) issue. You've got a name server object in one registry serving something in another registry.

Now this is actually always been a problem that's in existence. It just kind of the way DNS works. You can host, you know, things on name servers anywhere any TLD.

The affect of when this happens is on individual second or third level domain names. So you have to figure out some policies in your TLD, you know, when you're going to pull things out of the zone or not?

You know, like if you have a domain name that gets put on hold and you leave any child name servers in the zone or do you pull them. And different registries do that kind of thing differently.

VeriSign had to change the way it did things recently because it instituted DNS SAC actually. But it - it touches a TLD but it doesn't affect whether the TLDs going to fail or not. The affect is on the second level domains which is why I shade towards out of scope.

Also, it's been a problem that's been existence since the - you know, the beginning of DNS more or less. And it doesn't affect the stability or security of the DNS system itself I don't feel. That's kind of where I'm coming from.

Mikey O'Connor: (Jim) you want to come back?

(Jim): No. I mean I think we're all on the same page here.

Mikey O'Connor: I think that the point I'm hearing (Jim) make Greg is that that's all true and that the only use case that we might be interested in would be if one of those names that went away was the actual name of a name server that was hosting.

So -- I mean this an improbable circumstance -- but imaging that hostgator was hosting the DNS for a TLD, isn't that the situation we're talking about?

Greg Aaron: So for example...

Mikey O'Connor: Or not?

Greg Aaron: ...if a TLD was using, I don't know just pick an example, UltraDNS...

Mikey O'Connor: Yes.

Greg Aaron: ...and something happens to UltraDNS.com.

Mikey O'Connor: Right.

Greg Aaron: Then what you're saying is the TLD servers have a problem.

Mikey O'Connor: Right.

Greg Aaron: Okay. I understand that use case.

Mikey O'Connor: Yes, and I think it's only that use case, correct (Jim)?

(Jim): That is certainly the most directly applicable use case, yes. That's what I'm referring to.

Mikey O'Connor: Yes. So would you be okay if we could describe that use case Greg.

Greg Aaron: Yes, I think what -- this is an interesting use case and I understand what (Jim)'s pointing to a little better now. The -- this is perhaps a question of redundancy and diversity of a TLDs DNS. And this is how that can be - this is one of the ways that can be affected.

So this is an interesting example maybe if something, I don't know how we want to phrase it. But it's - it's about having multiple, you know, name servers in multiple places using multiple things to keep your TLD running.

Mikey O'Connor: Right. And that might be a way that we could put this -- we certainly have a diversity in scope discussion of diversity somewhere in this pile already. And we can put this - we can move this as a use case under that to review. How about that as an approach?

Greg Aaron: This is the kind of refinement that's really helpful I think.

Mikey O'Connor: Yes. Make that an action, not for now but...Would that work for you Greg if we or (Jim) if we did that - moved this under that (unintelligible) as a single use case?

(Jim): Yes. I'm good.

Mikey O'Connor: So I'm going to put this as the scope topic amplify that single use case. Put these a little closer together. Organize that a little bit and it changed my example from hostgator because I don't imagine anybody would use that. What just happened here, oh, I see.

Like that one goes away, that one goes away. Any of these go away that you hate me taking away let me know and I'll put it back. I think that kind of refines our discussion better.

Okay. Put it in scope with that caveat. This is great but it's also taken us right to the end of the hour. So I think with this we'll wrap this one up. Just a quick check is -- I have the sense that this is very productive conversation and that we should continue it. And just basically keep going and I'm getting a yes from (Jim) and (Rosella) and etc. etc.

So we will carry on with this next week. And I appreciate this great conversation. That's it for me thanks all, thanks (Natalie) for your help and we'll see you in a week.

Woman: Thanks everyone.

Man: Thanks Mikey, thanks everyone.

(Jim): Thank you Mikey.

Woman: Thank you, bye.

Mikey O'Connor: (Natalie) and all I think we can stop the recording.

END