

ICANN

**Moderator: Brenda Brewer
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8:00 am CT**

Alan Greenberg: I think we should get started then.

Bart Boswinkel: Yes.

Alan Greenberg: Could we have a roll call please?

Bart Boswinkel: Yes.

Woman: Bart did we lose you or are you on mute?

Bart Boswinkel: I was on mute. I said everybody - is anybody who is on the - just on the phone who have not - is in the Adobe room is - we call it as present. Over to you Alan.

Alan Greenberg: Thank you very much. The agenda is short. I think the work - the actual discussion may be relatively short also, although we have a - potentially a fair amount of work to get done in the next couple of days.

I sent out an email yesterday or late yesterday. I hope everyone's had a brief chance to look at it. It is on the Adobe Connect pod right now. And what I tried to do is focus on what we are supposed to be doing and how we get to closure on that, and deciding exactly how much we try to get done before this week is out.

And we are supposed to have at least something to submit into the report that's coming out. The - to start with I - I've extracted from the template the task that we have been given/the description.

And the simple form is we have to address what's - what is going to happen when NTIA is no longer there to fulfill part of the current root zone management process.

The description however goes further than that and it asks us to look at other issues related to the process, perhaps not directly related to the NTIA transition and make recommendations, identify any issues and make recommendations on how to go forward.

Clearly we are not going to address all issues in the next three or four days, but my feeling is we at least have to identify them and perhaps suggest what we will be doing in the next few months and what should be deferred to post-transition.

The first thing I noted when I was looking at the description however is there's a reference to DNSSEC key management architecture. And it dawned on me we have never had a contribution that I remember in any case on the mailing list on this.

My understanding is the NTIA's participation in the operational component of DNSSEC would only be in regarding authorizing changes to the root zone. That is exactly what it does in any other change and nothing specifically related to DNSSEC proper.

And I just wanted to confirm on people who actually know what they're talking about and I'm - and I don't with regard to DNSSEC to a large extent whether that reading is correct. David.

David Conrad: Yes so on the day-to-day basis there during the quarterly key signing ceremonies NTIA does not play a particular role. However NTIA does authorize or oversee or I'm not sure what the right word is - it sets the criteria by which changes in the DNSSEC architecture are allowed to be implemented by the root zone management partners.

For example right now we're in the process of developing a plan to roll the root KSK, and in order to move forward with that we're presumably assuming it - the plan is completed before the transition NTIA will need to approve that plan using whatever magic methods in dark, smoke-filled rooms that they use to determine whether a plan is acceptable or not.

Alan Greenberg: Okay thank you David. I am presuming that that is - that will be covered or that falls under the general auspices of the second bullet, my Identified Topics.

But can we keep that in mind when we go over that, and if I'm wrong and there's something else that needs to be put into the Identified Topics, can you speak up at that point?

David Conrad: Happy to.

Alan Greenberg: Okay. Okay so the parenthetical is gone and we don't have to worry about that in terms of operational issues. The next issue is or the next question is our basic recommendation.

Clearly the NTIA right now has the ability to delay or not allow at all the release of a - the root zone file containing specific changes. We have a recommendation from Design Team D that that does not need to be replaced.

So I think that means that our core recommendation is we simply tell the root zone maintainer, VeriSign currently, that they don't need to await NTIA approval before publishing any specific change or new root zone files.

Is it as simple as that or are there complexities that I'm missing? David again.

David Conrad: I'd point out that there is no relationship - contractual relationship between the IANA function operator and the root zone maintainer.

Alan Greenberg: Did I imply otherwise?

David Conrad: No. I'm just saying...

Alan Greenberg: Okay.

David Conrad: ...that - yes. Right.

Alan Greenberg: Okay. So I think by not saying anything you're agreeing that the core recommendation is simply to say the NTIA is out of the loop and the root zone maintainer is free to release root zones changes as provided by IANA without anyone's specific approval or without any other step in its place.

David Conrad: It - well perhaps part of that recommendation may also be that the root zone maintainer should accept changes from the IANA function operator, perhaps entering into some sort of agreement with the IANA function operator.

Alan Greenberg: Good question. Good point. Let's go to the speaker list first. Chuck.

Chuck Gomes: Thanks. Following up on what both you and David are talking about, I wonder if we ought to assume - preface those remarks by saying assuming that the contractual relationship with the root zone maintainer is resolved or we can actually make it a specific recommendation that NTIA needs to do the parallel work that they committed to with regard to their current relationship with the root zone maintainer.

Alan Greenberg: All right. I think I see a way forward but Milton first.

Milton Mueller: Hello can you hear me?

Alan Greenberg: Yes but you're very faint.

Woman: Very faint.

Milton Mueller: Very faint? Okay.

Alan Greenberg: And now you've disappeared.

Milton Mueller: Okay I'll shout. So...

Alan Greenberg: Okay.

Milton Mueller: ...to reinforce what David said I think you have two things for your list Alan. One is that you have to have a contract or spin a formal relationship between the IANA and the root zone maintainer.

Number two is that the NTIA has to do something as part of the transition. We can debate in more detail what it is but those are two very simple things we can identify that need to be done.

Alan Greenberg: All right, thank you. Question for the group. Is the last - latter actually true? Now NTIA has said there will be a parallel but separate process. Should they for whatever reason, and I'm not recommending whether they do or not, decide they're not doing that right now and it stays as a cooperative agreement between the NTIA and the root zone maintainer?

That I don't think changes anything for our - from our perspective. That's not a mandatory thing that must occur. It must occur if the NTIA is getting out of the business but it doesn't necessarily have to occur for the IANA transfer to be done. Is that - am I missing something there? Milton thank you. Go ahead. Can't hear you Milton.

Milton Mueller: I think it does mean that you have to - if the cooperative agreement between NTIA and VeriSign does not change as part of the transition, then the NTIA is still formally committed to approve root zone changes. At least that's my understanding of the relationship.

Alan Greenberg: That's interesting. All right. May I - since we have no control over that and certainly not over the timing of that, we believe the NTIA intends to get out of that but it's not our - not - it's not within our control to ensure that it happens.

Do we perhaps want to say something? And I'm going to try to formulate on the fly and I may not make it properly but if the NTIA changes its relationship with the root zone maintainer, that is dissolves it or changes it in some way, we - either IANA needs a - to have a contractual relationship with the root zone maintainer or the existence of that relationship needs to be ensured by the NTIA.

I think that is the case regardless and I think that covers the case of the NTIA acting or not acting. David you had your hand up. Do you want to get in?

David Conrad: No I was just going to comment that I believe the existing cooperative agreement - and Chuck probably knows this better than I that any change to the root zone maintainer must be explicitly approved by NTIA in written form.

So the - what statement you had made earlier that either there has to be some sort of relationship or NTIA will continue to be in the loop is probably accurate.

Alan Greenberg: Okay. Let me try to craft something which covers the eventualities including those that we have no control over and I'll put it on the mailing list. I don't really like drafting on the fly for something like this, but I have no doubt we can come up with a good set of words within a relatively small amount of time. Milton.

Milton Mueller: Hello. Yes at some point early in this discussion David Conrad suggested that there could be some kind of a procedure that automatically made the IANA proposed changes that would eliminate some kind of ability of the root zone maintainer to make arbitrary changes in the root zone file. Could David elaborate on that if he remembers what I'm talking about?

David Conrad: Yes I think we touched on that when we were discussing the audit mechanisms that I think Alan had suggested that, you know, the IANA function operator makes the zone file available and the root zone maintainer, you know, makes their zone file available and the audit entity would then compare those two files.

Alan Greenberg: I think that's covered in the next section we're going to be talking about that it's issues we've identified and to what extent do we want to try to address them with the transition.

They're pretty much all things that could happen today but the question is to what extent do we want to address them pre-transition or post-transition? If you - if we scroll up that I think is the substance of the question at the bottom of Page 1.

To what extent do we wish to flesh out the issues and conceivably suggest solutions to them within the transition recommendation, and what do we simply want to identify as possible of ways going forward?

The first issue on the list I put into the general title of Robustness. David used that on - in the list of issues he put forward and I think that's a good classification for all of the accidental or malicious changes that could happen within the current architecture.

Now some of them conceivably we can rule out as not likely to happen. We know at this point they're not - none of them are happening to our knowledge on a regular basis and even occasionally.

The first one was accidental or malicious changes or omissions within IANA. David I have a question for you that you might be able to enlighten me if not us.

Currently IANA receives a request from Registries. For the requests they receive from Registries they then parse them, validate them and ask for the Registry to confirm they have - essentially that they have it right and this actually came from the Registry. And they will not - sorry.

David Conrad: Yes to clarify - so when a change request comes in they do the validation and then as part of that validation they ask the listed contacts within the WHOIS database if this is an appropriate request.

They don't send back the request back to the requester. They just - and actually I should preface this in saying this is sort of conceptually what's done.

It - the mechanics of change now that there's a root zone automation system, but conceptually the idea is that there's a change that can be submitted by essentially anyone, and the IANA staff verify that the change that has been requested is intended that, you know, there wasn't someone who broke into the account and asked for a change.

Alan Greenberg: Okay that's what I understood. My question is - and you sort of implied it with your mention of automation. Is there an opportunity for accidental error at that - between that stage and it being forwarded to the root zone maintainer?

In other words is it cut and paste or copied by hand or is it simply pressing a button saying, "It's been confirmed. Transfer it to the change file?"

David Conrad: So the - I believe the way it works today is that when a change is submitted via the Web UI it is - generates a PGP signed email with a link that has a unique token and the contacts within the WHOIS database have to click on that link to allow the request to move forward.

Alan Greenberg: Okay and it then moves forward. My question is what - do you know the mechanics of it moving forward? Is there an opportunity for accidental change within IANA moving it...

David Conrad: There's...

Alan Greenberg: ...into what goes to VeriSign?

David Conrad: Right. There is always an opportunity for software bugs.

Alan Greenberg: Well yes. Okay sorry. Software bugs yes but it's not a cut and paste. It's not a manual...

David Conrad: No the system...

Alan Greenberg: Okay.

David Conrad: ...today now - it generates EPP messages that are sent into VeriSign's EPP server.

Alan Greenberg: Okay so essentially accidental changes short of software bugs are not really an issue in the first bullet.

David Conrad: Right.

Alan Greenberg: Malicious changes or omissions, just not doing it or something like that is a potential.

David Conrad: Yes.

Alan Greenberg: Okay. The second one is potential for out of policy changes with IANA. Now other than redelegations for ccTLDs I don't think there's a lot of things that it does based on policy other than handle requests that come directly from the Registries. Am I missing some significant part of its work?

David Conrad: Well this gets into the discussion that Chuck and I had about, you know, what is policy? I consider the technical considerations associated with a change to be policy.

And it's possible to submit changes that are, you know, technically in some way not meeting those technical considerations and that would be something - an out of policy change in my mind.

Alan Greenberg: Okay. Are those changes that would likely be caught by the root zone maintainer though?

David Conrad: It depends. I mean, it - there - it, you know, potentially yes.

Alan Greenberg: Let me ask the simpler question. Is this an area we have to look - go back and - again and look at it in more detail?

David Conrad: I guess I'd say it might be worthwhile exploring just to make sure that we understand what the - what is in policy, what is not in policy.

Alan Greenberg: Okay thank you. Milton?

Milton Mueller: Yes I think out of policy changes is definitely an area we need to look at. I think the issue here is just whether ICANN could create new TLDs or I guess redelegate existing TLDs and actually being authorized to do so as part of some...

Alan Greenberg: Sorry. Milton can you try speaking up or louder because you're sort of blurring?

Milton Mueller: Okay.

Alan Greenberg: That's better.

Milton Mueller: I said I think this is - out of policy changes is something we really do need to deal with and put checks and balances into some procedure or at least a flag. And that would mean not just the ccTLD redelegations Alan but also possible new TLD creations or taking away, redelegating generic TLDs on the basis of ICANN Board decisions or other kinds of policy consideration that would not be properly authorized.

Alan Greenberg: Okay thank you. I would suspect although the, you know, for - let's look at the GNSO. The GNSO has never really set IANA policy but that doesn't mean at some point in the future ICANN would not set policy.

You know, and to use a, you know, perhaps a simple minded one, you know, no change can be put into the root zone unless it's, you know, been on a public database for two days.

You know, I'm not advocating delaying things but if we made such a policy that would be a policy that IANA is expected to follow and not expected to violate.

So it's certainly conceivable. In the future we could have policy related to what IANA does. Chuck.

Milton Mueller: Well yes whether you call that policy or procedure...

Alan Greenberg: Well...

Milton Mueller: ...I think it's a good example of how you might try to prevent out of policy changes through transparency for example.

Alan Greenberg: Yes and that's one of the things a little bit later on our list. Chuck?

Chuck Gomes: Thanks. And going back to the discussion that David and I had on the list with regard to the term policy, let's make sure all of us on this Design Team are clear.

There's really two kinds of policy that we're talking about. There's policy from the technical side of the house, the standards and so forth with regard to root zone delegation, et cetera, DNS policy and so forth unrelated to the policies that are developed by the ccNSO and the GNSO.

So let's first of all be very clear on that. And the - I don't - correct me if you think I'm wrong on this but I don't think that either the IANA operator or the root zone maintainer do any interpretation or decisions with regard to policy developed by the ccNSO or the GNSO as applicable.

But they do do lots of tests both - and probably different tests with regard to the technical side of policy, so let's first be clear on that. Now with regard to a statement that was made earlier and I forget who made it that the IANA operator just - assuming all the technical checks - the technical policy checks are passed, all - they don't just do what's directed by the Registry operator, okay.

In the case of ccTLDs and with regard to delegation or redelegation they actually need direction from the Board, but with regard to gTLDs that is not the case.

gTLD - the GNSO did develop a policy for delegation of new gTLDs and so the ICANN team, you know, goes through the processes of deciding whether delegation occurs and through the Applicant Guidebook and so forth, and there's no Board action needed on that if it's decided that a gTLD should be delegated.

So the flow is a little bit different for gTLDs so in the case of gTLDs the applicant would go through the process of requesting delegation following normal processes.

And so that - the process that was described I think does work for gTLDs. In the case of ccTLDs there's a Board approval required in that.

Alan Greenberg: Yes.

Chuck Gomes: If I missed something there please correct me, okay?

Alan Greenberg: Well I will dare say you not only probably didn't miss anything but that's a lot more detail than we need to put in our generic. We may need to delve into it more if we choose to flesh it out fully.

Chuck Gomes: Agree. Agree.

Alan Greenberg: I - I'm reminded of a discussion that took place in a GNSO meeting on IDN label generation rules and someone used the term of, you know, the policies associated with, you know, IDN labels.

And someone else put her - their hand up and said, "But the GNSO has never set policy." And, you know, we tried to make it clear this was a lower case policy and policy includes agreed upon processes, you know, IATF standards and all sorts of things like that. So it's very much a lower case policy not a - an uppercase GNSO policy.

Chuck Gomes: And Alan this is Chuck. If I can respond before - and jump in the queue with David there.

Alan Greenberg: Yes.

Chuck Gomes: And we probably ought to for the sake of the broader community be specific as to when we're talking about the technical...

Alan Greenberg: Yes.

Chuck Gomes: ...or operational policy and the - I'm not sure what we call the policies. So just saying lower case P doesn't necessarily...

Alan Greenberg: No, no, no.

Chuck Gomes: ...add the clarity. Okay.

Alan Greenberg: We've spent ten minutes talking about it. Clearly we have to put it in writing. David.

David Conrad: Yes my understanding, which might be wrong but I was recently told this, is that with the latest version of the IANA function contract the Board no longer has a role in being able to approve or reject specific CC delegation requests.

The IANA staff does - is forced to do an interpretation and this has always been challenging about what exactly is local Internet community support for delegations and redelegations. And, in my ideal world the whole question of Delegation and Redelegation would be pulled out of IANA, you know, so they no longer have to do that interpretation. But, that isn't, I don't think that's directly relevant to what we need to do in the context of DTF.

Alan Greenberg: Thank you David, no I agree that's important but I don't think it's-- we need to specify which of the policies we're talking about at this point, lower or upper case. Chuck.

Chuck Gomes: Thanks and of course my personal view is that I don't think that the IANA functions operator should ever have to do any interpreting. I don't think they're equipped to do that which I think what you're saying David I totally agree with you on that. But, I have a question for Bart. Bart is it true that the Board longer has to approve the ccTLD Delegation or Redelegations?

Bart Bostwinkel: The way I look at it, and look I'm not very much into it, and Berry please jump in as well. You will see it on the consent agenda, and it's recorded and it's more a check -- and the way I interrupted as say -- from ccNSO

perspective. The way Dave, the way I interrupted is that the Board looks into the IANA report and as such adopts the report which is a kind of (unintelligible). So, whether you call this approval or endorsing a report it is not an individual decision as such.

Chuck Gomes: So, this is Chuck again. So, if the consent agenda is still in approval it's just more quickly.

Alan Greenberg: No, it is very much in approval.

Chuck Gomes: It should mean that the IANA functions operator doesn't need to do any interpretations once that happens. The check has already happened on the other side the house. If I can say it that way.

Suzanne Woolf: Yes, this is Suzanne. I'm not going to speak to this specifically I am going to volunteer to go check. But, I don't think there's been any change in what's expected of the board. The consent agenda it is, that's a mechanical, you know, optimization for the Board so that items that are not controversial can be lumped together just as a matter of business.

But, any Board Member at any time can, you know, take any item off the consent agenda there's nothing special about being on the consent agenda except a parliamentary convenience. And, I will go check and see if there's been any other change in the back, you know, in the process behind that. Behind which things come to the board. But, please don't read anything in particular about the process behind it into whether or not it appears on the agenda or the full agenda.

Alan Greenberg: My I intervene, regarding to whether the Board has to approve that doesn't change what is in our action item at this point.

David Conrad: Right.

Alan Greenberg: I really don't want to waste, spend a lot of time, you know, talking about what the process is for ccTLD Redelegations at this point. If there is any policy decisions that are governed by policy that IANA has to make we want look at whether there need to be something a check put in place to ensure that it is done properly. It may be related to ccTLD Redelegations or may be something completely, you know, off the wall unrelated to that. David you have some comments on the check? Is there something you want to say in relation to this?

David Conrad: Yes, we can just either Suzanne or I can take an action item to clarify that, if there's interest with IANA staff and report back. But, the real question probably in the context of DTF is, you know, if NTIA goes away does anything need to change in that and in the context of the Redelegations. I don't really think it does, you know, it'd be -- like I said -- it'd be nice if we could pull the considerations that IANA the interpretation rather that IANA has set has to do out of IANA. But that's a separate topic to DTF I believe.

Alan Greenberg: I believe so. Milton you wanted to add, talk about whether IANA should be interpreting. And, I'll turn the floor over to you to address that. I have a question for you. My feeling is that if IANA is given a set of rules, there's always the potential that they could interpret it differently than whoever wrote the rules meant. You know, hopefully the clarity and clear rules we don't have much of that but there's always certainly the potential for misinterpreting. So, I'm not sure one could say you're not allowed to interpret unless we give them an authority to go to on every case. But, Milton it's yours.

Milton Mueller: Well, I was thinking now that we have a narrowest scope as suggested by David that we're just talking about what it means with the NTIA has gone away. And, maybe don't need to address that. If we're looking at the overall function into this system and I think we do need to talk about it.

But, in this context and maybe we can set that aside for the fine tuning of the proposal and limit this redesigning and what does the absents of NTIA mean when there are (unintelligible), agree?

Alan Greenberg: No, I think for the NTIA it's not an issue. But, it is on under the overall topics that we've identified of potential weakness in the system.

Milton Mueller: Right.

Alan Greenberg: And, think in this case under the Glib second sub bullet that I have of potential for out of policy changes, that doesn't necessarily mean the NTIA, the IANA has decided to go against policy. That might mean that someone is claiming that they misinterpreted the policy and did something wrong as a result.

And, as David has pointed in a number of cases regarding ccTLD delegations when someone claimed NTIA did not follow policy there are other people who said, no they did follow policy. And, it was an issue of different people interrupting the policy differently. So, there's always the potential for that and the questions is how we address those.

Bart Bostwinkel: At this stage do you think it would sufficient to just say, whatever mechanism we come up with in the technical or procedural or institutional has to be focused on preventing out of policy changes.

Milton Mueller: That's right and potential how does one handle them when someone's claims they are. But, I think, let's defer what we're doing going forward because I think that's a separate topic. I think we all understand these issues right now.

The last sub bullet the accidental or malicious change or omission within the Root Zone Maintainer that's the only one that a proposal has to be made on a technical solution. And, that is essentially having IANA create their version of the Root and having that compared to what the Root Zone Maintainer plans to publish and having an external auditor look at that. So, that one we might have a potential solution to.

That's still presumes that the Root Zone Maintainer published what they say they're going to be publishing. But, I think that's something we control by just the mechanism of doing it. But, I don't think at this point it's not clear we are going to propose solutions to that particular problem at this stage. Certainly not by Thursday. David.

David Conrad: Yes, just I think in one of the email exchanges the idea that if the change that's being proposed to the IANA is made public then it would allow the auditor to verify that the change that was proposed -- also by the IANA -- is appropriate. And, it makes the assumption that if it's made public then the TLD manager that in question would notice if IANA had submitted something without their approval.

Milton Mueller: That's a good point. For Bart if the change request is made public. Now my question is are there cases where change request for one reason or another where the registry or other parties would not want a change request made public before it actually goes live.

Bart Bostwinkel: So, I think I mention that right now there's a presumption of confidentiality that anything submitted to IANA kept confidential until it pops out the other end as a resent change. The original rational for that requirement I'm told, was because a long time ago someone how had wanted to do a Redelegation had their life threatened by the existing incumbent. But, that was a very very long time. It occurred to me that confidentiality requirements is necessary anymore but that's a policy decision I suppose.

Alan Greenberg: And, we still have issues where Redelegation ccTLD documents are not necessarily made public. But, the ultimate decision that we are going to do it in a day, it's not clear that there's really any confidentiality at that level. Because right now they do require Board approval.

I guess we need to go out to the community and find out is there any reason that these change request need to be kept confidential. Because if they don't we can certainly open these things up and then allow a number of different verifications which would insure that we don't have changes made arbitrarily within in the system. Chuck.

Chuck Gomes: Thanks Alan. And, I think your suggest of going out to the community on this is a good one just to make sure. But, certainly one of the things I've learned in the CWC process is there are lot of sensitivities on the ccTLD side of the community by certain operators and certain governments. So, we definitely ought to make sure that this is one that we check carefully.

Now, I think it should be checked on the CCTLD side I'm not aware of any confidentiality issues on the gTLD side. But, we should at least ask to make sure that there aren't any, that if we made each step of this public and how much is made public let's at least confirm it like you suggest.

Alan Greenberg: Can I make a suggest-- not a radical but a strong-- a recommend. Can I raise an issue that maybe pushing the issue? Do we want to make a recommendation that IANA be allowed to make public request prior to implementation. Let's make that as a specific recommendation in what we issue this week. It goes into the report and let people comment on it. I have Bart and Milton in that order.

Bart Bostwinkel: This is Bart. It might be useful to again invite or ask IANA staff about their intentions. I note that during the Singapore meeting there was a presentation by (Alyse Garis) and (Kim) around the potential of making -- for example -- Delegation or Redelegations requests more transparent. So, make them public before it would go onto the board agenda. So, there is movement there already.

Alan Greenberg: Okay, but that's far more transparency than we're talking about here. We're just talking about making the actual request that's going into these pipelines public enough, not the Redelegation consideration which is a much longer and perhaps more sensitive.

Bart Bostwinkel: No, but at least make them-- at least my suggestion would be to check with IANA staff is currently already published and what will be published in the near future. And, then use for example the recommendations to reinforce what they intend to do.

Alan Greenberg: I'll take that as a to do. I will make sure we have that in the next day or so. Milton.

Milton Mueller: Yes, I just wanted to ask, I mean I support transparency of these request as a good standard sort of accountability mechanism. But, I'm wondering are there any security considerations in terms of saying that you're going to make a

particular change in the Root Zone would that if anybody wanted to attack that would that help them. Assuming that they could figure out some tricky way to interfere with the process. I don't know.

Alan Greenberg: It's a good question and it sounds like we're heading in a direction that -- whether we make a recommendation or raise the issue -- there should be something explicit about this level of transparency of proposed changes in what we send to the CWG before the week is out. I think everyone's agreeing that it's something we need to consider. We don't understand the issue well enough to perhaps make a recommendation on it.

Anything further on that point? If not we'll go on to the next one of whether we need to replace the NTIA and if so in decisions regarding substantive Root Zone changes. Examples are DNX set, ITV six and I'm sure there are others that they have deemed involved in if not the technical details then the timing of them. Root Zone Scaling may even be one of those that they were approved somewhat involved in.

I don't see how we-- although I except design team D's recommendation to not replace the approval function. My understanding is the NTIA has played a subsidize role and in the view of some have played a delayed role that is reasonable delayed things. But, from their perspective obviously for a reason. And, I don't think we can just say, it's not needed. But, it's not clear how parts of the community are going to replace that function. David, Suzanne and Milton in that order.

David Conrad: Right so my interpretation of that operative design team D was the point was authorization function which the NTIA, the role that NTIA currently performs is unnecessary. The key issue with existing role is that the entire staff is not privy to sufficient information to make that authorization function purely

useful. It also introduces a couple of denial service points and other suboptimalities.

I don't-- I personally believe that, you know, in the design team D recommendation I believe that was commentary along the lines that there should be some type of an email decision was called the trust but verify mechanism. I think that would probably be useful the exact form of that is not entirely clear to me. And, you know, obviously it won't be NTIA performing that but some other mechanism.

Alan Greenberg: Thank you David, I think that covered under the robustness. Isn't it not. And, the question here is how do we replace the NTIA not in their operational role but in their role overseeing the architect of the operational characteristics technical issues. Yes, go ahead.

David Conrad: So, there was some discussion about in design team C about including a mechanism by which the CSC could spin up a at hot group to look at technical changes in the same way that NTIA performs the oversight or however you want to describe their role that way. I'm not sure what the status on that is. I haven't been able to follow the design team C stuff recently.

Alan Greenberg: I guess I would ask do we consider it being done at the CSC level sufficient. Suzanne.

Suzanne Woolf: Only that, you know, from what I saw on the list I'm-- the concern here is that NTIA was one of the parties that need to agree to committing to a change. Certainly a change margin of that it was deemed a requirement of contract modification. So, that role does need to be replaced I think. The other concern and I haven't followed the DTC conversation enough to look at what mechanism are proposing.

But, the other piece of it is that the decision to make-- making a decision on those matters is often not a simple thing and requires some preparations, some work some things that cost us money. And, in the past it's been, you know, David and Chuck have more insight on the specifics. But, it has been within except through processes that money could be spent on things like Root Scaling studies or setting up the infrastructure of DNS set which is considerable.

But, I think the principle concerns there is that if we're looking at accountability mechanisms that put new budget controls in place or some of the changes that the budget D team was looking or the CCWG was looking at. I think all we can do from this group is say that those processes are external to this group, but there are some requirements that we can clarify for them. And, just say however it fits into the structural discussion we do need to make sure that a decision can-- there's some processes by which a decision can be made whether it's the CSC or something else.

And, we need to clarify that somebody needs to have the budget authority to investigate a possible change. And, to if we're to spend money on reviewing and planning and then implementing something on the scale of the DNS set decisions. So, I think we don't have a chance, we don't have a choice about replacing that capability but it's I think all we can do is say requirements because the replacing it does touch on those somewhat larger issues about budget and the role CSA and so on.

Alan Greenberg: Okay, thank you Suzanne. Question before we go to Milton. I know Steve Crocker had said, that as times the NTIA and loop has perhaps delayed things unreasonably. I want to ask the converse question. Do you believe or who we need to ask whether other than the NTIA having to be involved because

there's a constructional change and therefore clearly they have to sign off on a change in the contract. Have they added value being in the loop on these discussions?

Suzanne Woolf: I certainly can't speak for Steve. And, David and Chuck have more-- as I said on the list it's a little hard to answer questions like that because there's been no documentation of the process.

Alan Greenberg: I understand.

Suzanne Woolf: From my perspective so given that's a little hard to address NTIA role specifically, I will say that I have worked closely both with IANA staff and we've done maintainer staff on several of the issues I've brought up. And, it's everyone involved has been very careful and very concerned to be conservative and to look after security and stability and so on. Absolutely to the limit of engineering prudence.

So, it's actually not possible for me to answer the question specifically. But, I have great confidence in the system without NCIA along that specific line. I mean, again David and Chuck were more closely involved with the day to day of that. And, there's no document process for me to comment on. But, from direct experience I think there's plenty of care and consideration to go around.

Alan Greenberg: So, if I may paraphrase, yes they may have to the (unintelligible).

Suzanne Woolf: Sure, go nuts.

Alan Greenberg: You don't have to confirm. They may have confused something the chances are they're absents someone else would have made comparable, provided

comparable input. If you're not screaming no, I'll take that under advisement.
Milton.

Milton Mueller: Yes, that's exactly the issue was going to address. I think you may be making a bit too light of the issue of authority. NTIA was an authority and however much they contributed technically, which probably nothing. They were the person who you had to get to agree and they could rewrite the contract. And, that is an important function.

So, I think Suzanne would probably-- I think she said, I think she would agree with me that when you're making policy what is sort of architectural decisions about, example how we do ND sec somebody has to be in that position. And, so I would say, as this is, you know, very much outside the scope of this group and more part of the general governance structure that we're debating on over IANA.

And, particularly, you know, these debates over the legal separations and whether IANA has its own governance structure of whether this little part, a tiny little part of the overall system is actually overseen by the ITN board or the CSC or something like that. I think these are very important question and that they're not going to be resolved here and should not be resolved here.

Alan Greenberg: Milton is fair to say -- that again, I'm trying to pull some of these things together -- that in exercises its oversight and management function they may not have contributed specific technical things but someone has to exercise that perspective.

Milton Mueller: Yes, the word is authority not respective. Somebody is in charge of writing the IANA contract. I know that we all kind of like to shove down to the rug and pretend it didn't exist for 15 years but it did and it was extremely

important. You know, I think David has confirmed it in the early days when ICANN was trying to play some games with ccTLD. It was NGIA that people went to get that changed.

How would it be in the future when NTIA is not there? I think that's again, that's a governance issue not a technical issue and it's not one this particular group is going to resolve. I think it is relevant to these overall, you know, experiment changes in the way the Root Zone is managed, by the implement of the DNS set somebody has to have the final word on, okay here's what we're doing.

Alan Greenberg: And, I think it's one of our responsibility is to make a recommendation on how that back stopping -- as the word is being used -- is going to be replaced. And, that's why I use perspective because there are plenty of examples in the world where someone may not have authority, contract authority, but someone has to ask the right questions.

Man: Well we may, you know, disagree on that, or we may - it depends on the particular situation of asking questions. The right questions can be ignored because they don't have any...

Alan Greenberg: Well yes, but - touché.

Man: Very familiar with that situation.

Alan Greenberg: Having managed large groups of people, so am I. David, you're next.

David Conrad: Yeah, just to answer the question specifically, did NTIA provide value in some of these exercises where we were doing significant changes? I would say yes. You know, NTIA does have - you know, while NTIA staff

themselves are not particularly technical, they do have access to a vast array of resources.

And, in fact, every time we've done anything associated with DNSSEC, they've called upon NIST, the National Institute of Standards and Technology, which is part of Department of Commerce. And the NIST folks have been - in fact, provided many of the specifications and hoops that ICANN and Verisign needed to come up with a plan to jump through when we were deploying DNSSEC.

And undoubtedly within the context of the KSK rollover stuff, we'll have similar hoops we'll need to jump through, just to make sure that, you know, all the t's are crossed and the I's are dotted.

So from that perspective, I would argue that they have provided some value; not to say that we can't come up with other mechanisms. But, you know, the advantage the NTIA had was that they could make those requirements stick, you know, the stuff that NIST said, for example, FIPS 140-4, hardware security modules had to be used.

You know, in my preferred world we probably wouldn't use the Level 4 qualification, because at the time there was exactly one vendor who had that certification, which sort of sucked. But the advantage that NTIA has is that they can force that through contractual obligations.

Alan Greenberg: Okay. David, what I'm hearing you say is that yes, they have added value. And yes, we must have a proposal which identifies, to at least some extent, how we replace that.

David Conrad: I would agree with that, yes.

Alan Greenberg: Okay, so that's something we need not for this Thursday, perhaps, but we need it before the proposal is finalized. So that's something which is critical. We can't specify in great detail because we don't know what the next problem is that we're going to have to address, but it's a consideration we have to take.

Anything further on this item before we go on to the next one? We're going to start running out of time if we're not careful.

The next one is perhaps a motherhood one, but it's essentially saying that we are considering recommending that the changes - any changes are made do not concentrate the power and responsibility for the root zone in a single entity, noting that under our robustness item, we have several places where indeed right now that is happening. David, is that a new hand or an old hand?

David Conrad: Old.

Alan Greenberg: Okay, thoughts. Is this something we want to go forward? Or it's not something we want to say? I know it's something that a number of people felt strongly on. Not hearing anything, does that mean we can drop it?

Okay, Chuck says we should definitely say it. By definitely saying that, that also implies we ultimately -- either we or our successors -- have to come up with ways to address the holes that we see under the first bullet, under robustness, because we can't say it and then not act on places where we know it's already not the case.

Chuck Gomes: Alan, this is Chuck. I'm not sure I understand your point there.

Alan Greenberg: Well right now there are a number of places where unilateral changes can be made. No one will catch them, perhaps. And the question is, if we're saying you must not allow the power to be concentrated in a single entity, we already are allowing that.

Chuck Gomes: Well let me - this is Chuck again. Let me respond. Well first of all, I think what I understood we were saying on the list was that the root zone maintainer and the IANA functions operator shouldn't be concentrated in one place. You seem to be talking about more than that. Am I correct?

Alan Greenberg: Well I'm suggesting that the end result can be the same. That is, if you have the two entities in one, they can't cross-check each other. And I'm saying there are places right now in the structure where either of those entities could conceivably make unilateral changes.

Chuck Gomes: Okay, but maybe what - this is Chuck again. So I'm - do we want - maybe we ought to separate the two -- the broader statement that you're making and the keeping the separation of the two entities. And the reason I'm saying that is they're - and by the way, I don't care. I really honestly don't care whether it's Verisign doing it or not was the point I'm making, okay? So I'm not trying to protect Verisign's turf, which it'll probably come across that way.

Man: Of course.

Chuck Gomes: Anyway, the - because obviously we don't make any money off of this thing. So there have been suggestions in our discussions in the CWG and in the broader community over the last several months, that suggest that ICANN could just do both -- just do what they do now, plus do the maintainer role, okay? That's the point I'm getting at.

I believe that there's good checks and balances by having two separate entities doing those two functions, and I think that's the point worth making if we agree on that, obviously. And it seemed like we were on the list. So that's why I'm focusing strictly on that one point, because it has come up that it should be one entity, that ICANN could just do it all.

And so now, beyond - you're saying a little bit more than that. There are places where just that having two entities do it doesn't necessarily cover all adverse possibilities. I get that. But I guess what I'm saying is that maybe that's - we separate that broader issue there. Thanks.

Alan Greenberg: All right. Can I - okay, we have a number of speakers. But if, as you're coming in, could you address what form should this take in the output that we provide to the CWG? Is it a specific recommendation that going forward the two entities never be given to a single - the two functions never be given to a single entity?

Is it a proposal that we want input from the community on it? If you can address what form you believe we should be taking...

Chuck Gomes: Okay, this...

Alan Greenberg: ...this idea with? Okay, quickly...

Chuck Gomes: Yeah, just did you want me to answer that?

Alan Greenberg: Chuck and then - very quickly.

Chuck Gomes: Yeah, just I would say the former, that I don't think we need to go out to the community on it. We can - I think it's something we can make a recommendation on. Again, I'm assuming we agree on that.

Alan Greenberg: Well right.

Chuck Gomes: If we don't agree on that, that's a different story.

Alan Greenberg: That's why I'm asking multiple people. David?

David Conrad: Yeah, so I think the assertion as it is is actually appropriate. You know, I don't - I've not heard anyone seriously proposing to integrate the IANA function operator and root zone maintainer, you know, since, I don't know, around 2000 or so. But, you know, I think the auditor role that we were discussing addresses this particular topic as well.

Alan Greenberg: Yes, okay.

David Conrad: So I think having that statement, I don't know of anyone who would actually disagree, other than someone who's looking purely at the engineering efficiency aspect of this. And I think the assertion that we would make - sort of saying that yes, while it might be - engineering-wise might be more efficient to have just a single entity, I think the political need to have a two-man rule or two-person rule outweighs the engineering efficiencies.

Alan Greenberg: Okay, thank you. Milton?

Milton Mueller: Yeah, same thing as David. It is actually a very sensitive political issue in the US, and I think we simply say - we can either just keep the language that you have, which was vetted through the list; or we could simplify by - just say that

the (unintelligible) maintaining a separation between the IANA functions operator and the root zone maintainer.

Alan Greenberg: Okay, noted. Next item. To what extent can we or should we increase the transparency? Oh, okay. We already talked about that one. Is additional or different security required in the age of cyber terrorism? I'm using glib words there that I don't normally use.

Do we want to address the issue of security, given that ICANN has had a number of security violations not directly related to IANA? They are currently sharing physical infrastructure with ICANN. Do we want to make any specific recommendations with regard to security? Milton?

Milton Mueller: Well again, separation of IANA's latest structure from ICANN's might be a good idea.

Alan Greenberg: Okay, any other comments?

Milton Mueller: Basically the structure to, you know, add dozens of new top-level domains, to deal with hundreds of registrars, the security requirements of that are very different from making root zone changes.

Alan Greenberg: Thank you. David next, but I'll make a comment. When we started talking about security a few months ago and the various security incidents that have been reported, I was somewhat amazed to find out that IANA and ICANN shared an IP address and, I'm now told, a significant amount of the core infrastructure, presumably because it would be very expensive to do otherwise.

But nevertheless, you know, is that something we want to strongly recommend? David? Can't hear you, David.

David Conrad: Wouldn't that fall under the robustness aspect that we were discussing earlier?

Alan Greenberg: It could well. But I think if it's - I certainly didn't read it under the robustness part. It falls under the robustness category, but it wasn't one of the sub-bullets we had there. But yes, it could be moved up to robustness.

David Conrad: And just to follow up on that, if there is going to be a separation of the technical infrastructure on top of which IANA runs, the budget numbers that were provided in (ATO) or whatever probably need to be revised upward significantly.

Alan Greenberg: Very certainly. There certainly would be a significant component of cost, even if you have the same staff - you know, you're sharing the same staff to do the work, just replicating the physical infrastructure and duplicating the efforts has a cost to it, certainly. Chuck?

Chuck Gomes: Thanks, Alan. And to follow up on what David said there, in Design Team O, we had a fairly detailed discussion with (Xavier) in our second meeting with him.

And, in fact, I think we're even going to make a portion of the transcript available for the full CWG with regard to added costs, even if you're doing a wholly-owned subsidiary and can take care of some efficiencies. He shared some good information, and even in that scenario where you still have some increased costs.

So then coming back to what Milton said with regard to the full separation, I'm not opposed to that. But like David said, we do need to realize that if you totally separate infrastructure, you are going to have increased costs.

Now with regard to security, is it - you know, if the security's good across the whole ICANN organization and IANA benefits from that, that's a plus. Obviously if there are security weaknesses in the whole organization and IANA shares with that, that's something we don't want.

So but I do think that we - you know, at some point, I don't think cost should be the primary factor, especially when it comes to security. But it's something we should - you know, that the community needs to look at. I'm not saying that this group necessarily needs to. But there are cost factors that will come into play.

Alan Greenberg: It sounds like there's a general feeling that we should mention the issue for future consideration. We're certainly not going to architect ICANN's and IANA's physical network infrastructure in this meeting.

Potential for changes to the process - or sorry, potential for changes to the process slowing down the speed of root zone change implementation. I think this should be mentioned because it's something that has to be kept in mind. And there have been strong statements saying that, you know, slowing down is not something we would ever want to do.

But I don't think this is a major recommendation as such -- just something to file away as we make other changes. Do we need to be any stronger on it than that? Seeing no hands - oh, Chuck?

Chuck Gomes: Yeah, I guess I kind of lean towards being a little bit stronger, from a registry operator point of view, okay? I think certainly the gTLD registry stakeholder group has made statements in some of its comments in this process that, you know, we really don't want a reduction in the level of service that we get now. If we can improve on it, great. But so I don't know.

I kind of lean towards being a little stronger on that. I think at least best efforts should be made in whatever happens to not slow down the process from the IANA services point of view.

And if a registry decides not to be responsive to the interchange between the IANA operator and itself, that's one thing. That's their own choice, and certainly the IANA operator shouldn't be held responsible for that with regard to SLEs or anything like that.

But so I'm not going to lay down on this one in terms of fighting for it. But I would tend to think that we might want to make a statement that best efforts should be made not to slow down the processes that exist today.

Alan Greenberg: Yeah, Chuck, I think that's pretty well in line with what I was saying. Perhaps not...

Chuck Gomes: Okay, good.

Alan Greenberg: ...not as eloquently. There's no action we can - where it can say take. But as other changes are made, it should be considered. I mean one may well come up with a situation where something is so desirable that it will slow down things and it's acceptable. That's a value judgment that has to be made at the time, I would guess. I can't imagine just what that would be, but anything else?

We've come to the end of the list. The next question is, how do we go forward? We are supposed to deliver something in a couple of days. Some of us have had our schedules already controlled over the next couple of days, so we don't have an awful lot of time. Our next meeting, I believe, is on Wednesday. Is that correct? Does anyone know?

Bart Boswinkel: Yeah, that's correct...

Alan Greenberg: What time is it, UTC on Wednesday? Does anyone know? I may know.

Bart Boswinkel: This is Bart. It's 1800 UTC on Wednesday.

Alan Greenberg: Okay, so there's a few hours on Wednesday that could be used for drafting, if it doesn't get done before then. But preferably before then. Can I ask - I'm willing to take on the overall drafting role of trying to take these notes and put them into a form close to what we might want to say to the CWG. I'd like a couple of volunteers to work with me, and vet the things. And I'm hoping...

Bart Boswinkel: Alan?

Alan Greenberg: I'm hoping that staff, Chuck, David and Milton, if you think you're going to have any time with the (ARON) meeting, to be able to bounce things off of you...

Bart Boswinkel: Alan, this is Bart.

Alan Greenberg: Yeah, go ahead, Bart.

Bart Boswinkel: Would it be easier, let's say, if the three of us -- (Bernie), you and I, we'll be on these calls -- that we take a first stab and share it as quickly as possible with the larger (DTF) group?

Alan Greenberg: Okay. That's acceptable.

Bart Boswinkel: Yes, and say - being either - say (unintelligible) check first around tomorrow afternoon.

Alan Greenberg: Okay.

Bart Boswinkel: UTC.

Alan Greenberg: All right, and I'm sure both Chuck and David, I know, will find the time to do this. I'm not allowing them to say no. Milton, I know your schedule may be tight because of the other meeting.

(Man): I'm actually also at the (ARON) meeting, but I'll...

Bart Boswinkel: Yeah, but it's easy that a small group starts off, and then we share with, say - we broaden it a little bit after wards.

Alan Greenberg: Okay, well we're both talking three people. You're just talking a different three people, and I'm happy with that.

Bart Boswinkel: Yeah.

Alan Greenberg: All right.

Bart Boswinkel: We'll get there.

Alan Greenberg: I'll work with you, Bart, and (Bernie). And we will do something with the wider group, perhaps sharing with one or two other people in the interim. I'm happy. We're just about on the half-hour where we're supposed to end, regardless of the late change.

Chuck Gomes: So Alan, this is Chuck. By the way, I'm comfortable with what you just proposed. But one of the things that's been discussed on our list has been this idea of a possible software change needed if there - when NTIA is out of the loop.

And have we confirmed that the automated software that works right now, that there needs to be a change in that if NTIA is removed? In other words, is that an automatic software thing that happens? Or is it something that's manual?

Alan Greenberg: Well there are certainly going to be software changes to the extent that - I don't know whether the things that are currently pushed to IANA require action, or IANA pulls them from somewhere. I don't know enough about the mechanics.

So there might be some IANA changes related to not sending anything to NTIA, if it's indeed sent. There are certainly going to be changes required at Verisign, that you are not holding things pending approval. So there certainly are a number of operational changes associated with simply taking NTIA out of the process.

Chuck Gomes: I understand those. But my - this is Chuck again. My question is, shouldn't we specifically identify what software changes are needed, even before our next call? I mean I don't think that would be really hard to - so I don't know what

the program is and what changes. But it seems like it would be good for us to specifically identify those and call them out.

Alan Greenberg: Yeah, I have a hand from David. Let's hear from David first.

David Conrad: Hi. So currently the root zone automation system will require a change in process in the sense that - well assuming that Verisign is continuing to be the root zone maintainer, the only necessary change would be that instead of NTIA logging into a UI to approve the - authorize the change, IANA staff would be logging - or other ICANN folks would be logging into the NTIA UI user interface to approve the change.

So there doesn't - in the short term, as long as Verisign is still the root zone maintainer, there doesn't need to be any change in the existing software systems. However, obviously having that call out for the authorization, if there is no authorization function, is sort of pointless, and we could improve efficiency and fix code by simply pulling it down.

Chuck Gomes: Thanks, David. That's what I was trying to pinpoint.

Alan Greenberg: Just out of curiosity, David, does that mean IANA could log in right now and pretend they're Verisign - pretend they're NTIA?

David Conrad: Not really. Well I mean in theory they could, by forcing a password change.

Alan Greenberg: Just curious. Okay.

Woman: Some things are better left unknown.

Woman: And unsaid, I would have thought.

David Conrad: There is some complexity there in that the NTIA UI is actually run in two different places. I can get into painful detail about that, but it's unnecessary.

Alan Greenberg: As long as one of them isn't in Marina del Ray, we're okay. Don't answer that question, please. I thank you all. You'll hear from us shortly. Those of us who are on the CWG, enjoy your 26 minutes of rest. Bye-bye.

Chuck Gomes: I do appreciate it.

Woman: Thank you.

Woman: Thanks, Alan.

Woman: Bye.

Man: Bye-bye.

Man: Bye.

Woman: Bye.

END