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DANIELLE RUTHERFORD: Good morning, good afternoon and good evening. This is the RZERC Teleconference, held on Tuesday, the 28<sup>th</sup> of January at 1900 UTC. Duane, over to you.

DUANE WESSELS: Thank you very much, Danielle. Welcome everyone, welcome to our January meeting. You've all had a chance to see the Agenda. The first order of business is to welcome Geoff Huston as the Appointee from SSAC. Geoff replaces Russ, who was with us for the first few years, so welcome, Geoff. I assume you are reading us okay?

GEOFF HUSTON: Yes, I am, thank you very much, yes. It's an honor to be here, thanks.

DUANE WESSELS: Great. Unfortunately, we didn't really get a chance in one of our meetings to thank Russ for his time on the committee, we'll have to do that when we see him in person the next time. Danielle, would you like to do the formal rollcall for us?

DANIELLE RUTHERFORD: Yes. From ICANN Board, Kaveh Ranjbar.

KAVEH RANJBAR: Present.

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

DANIELLE RUTHERFORD: PTI, Kim Davies.

KIM DAVIES: I am here.

DANIELLE RUTHERFORD: SSAC, Geoff Huston.

GEOFF HUSTONE: Yup.

DANIELLE RUTHERFORD: I see that from RSSAC, Brad Verd is absent. ASO, Carlos Martinez, I don't see him online. IETF, Jim Reid.

JIM REID: Yup.

DANIELLE RUTHERFORD: GNSO Registry Stakeholder Group, Howard Eland.

HOWARD ELAND: Yup.

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DANIELLE RUTHERFORD: We have apologies from the ccNSO, Peter Koch, and VeriSign as the Root Zone Maintainer, Duane Wessels.

DUANE WESSELS: Yes, thanks.

DANIELLE RUTHERFORD: Then we have just me, Danielle Rutherford from Staff, Steve Sheng sent his apologies.

DUANE WESSELS: Okay, very good, thanks. You have the agenda on the Zoom and you've had it in email, any suggestions to change or amend the agenda before we proceed? Okay, doesn't sound like it. We'll move onto Item Five, which is a few administrative items.

First of all, our last meeting was in November, our December meeting didn't really materialize due to a number of people being absent. We have minutes from November that need to be approved. Did anyone have a chance to look at the minutes and see anything that needs to be corrected before we go ahead and approve and post those? Alright, doesn't sound like it. I think we can take those as approved and I'll ask Danielle or Staff to post those on the website as soon as they can.

Next, something we had discussed again in our previous meeting was whether or not RZERC should make a response to IANA's proposal for future KSK Rollovers. We had some on list discussion and a little bit of discussion in person in November and in the end, it didn't seem to be

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that we had consensus or enough people really voicing support for doing that, so we've decided not to make a comment, which is a good thing that we decided that because the deadline is in just a couple of days and we would no longer have enough time to do that. Just want to formally get on the record that we've decided not to make a comment.

Next, will move on to the follow to the discussion we had about Appointment Terms within RZERC. The graphic that Danielle is displaying now shows the periods of time in which people have been appointed by the various appointing organizations and for how long their appointments have been. You can see that initially there was -- everything sort of started at the same time, that was in August of 2016.

A lot of the appointments were made in that month and then, things were going relatively smoothly until in 2019, due to lack of things to talk about, we stopped having regular meetings and ended up with kind of this gap in appointments. Some members terms expired and we were late on reaching out to those appointing organizations to ask them about reappoints, so we eventually did that.

You can see now that things are getting a little bit out of sync if you will and this has a few implications, one for just general planning but also for things like the Chair Election. Does this graphic make senses, everyone sort of sees what's being depicted here, I can assume? Geoff, go ahead, I see your hand is up.

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GEOFF HUSTON: Everyone's colored it a book color except yourself, Kim and Kaveh, who during 2020 expire into white; is there any reason why you've got that variable color in those three positions, oh and Carlos, sorry?

DUANE WESSELS: So, those where a gradient, that's intended to represent that those appointments don't have fixed term limits, they're sort of ongoing. I only drew them into 2021 for no good reason. The ones that have fixed limits are shown in solid and the ones that sort of fade out are not. Does that make sense?

GEOFF HUSTON: It does. I have some passing familiarity with the ASO and thought that was a continuing reappointment rather than an indefinite appointment but I'm Carlos can clarify that when he's able.

DUANE WESSELS: Yeah, to be honest I'm not perfectly sure myself, I think that -- if I remember correctly, I saw something from the ASO that consider Carlo's appointments somewhat temporary or...

GEOFF HUSTON: I actually thought there was some kind of appointment for a period. My memory is vague but your explanation as to what's going on I understand. Thanks.

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DUANE WESSELS: One of the things that we can talk about is, if RZERC would prefer for the terms of it's appointees to be more aligned, to make it easier for us to manage going forward and to ease things like the election or if we would prefer to be very sort of hands off and let the appointing organizations develop their own schedules and then we just have to deal with whatever comes our way. Jim, please go ahead.

JIM REID: I think the later choice would be the better. Trying to get all these organizations to align their calendars is probably not going to work out, certainly not from the IETF point of view, that should all be discussed a few months back. The IETF appointment is made on a yearly basis for a maximum of four consecutive years and they do this in summer, they could move it but the chance I'm going to get all these organizes to meet is probably more bother and it's not quite flatly.

I think we need to adjust this, given this particular problem will be to allow some wiggle room for the term of the chairman, so say for example in last year of an outgoing chairman's appointment, that can be extended for up to a year, so the appointment of the new chair can align with a new set of members of RZERC that have got a fresh mandate from their constituent organizations. I think that's a way to solve this problem.

DUANE WESSELS: Thanks, Jim. Can I ask you to [inaudible] maybe with an example, so for example if the IETF were to have a member on the committee who was the chair, you're saying that if the IETF's term ended before the chair's

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term ended then that person would continue to be the chair until the chair term ended?

JIM REID:

No, no absolutely not. If the constituent member is removed from RZERC because they don't get reappointed by their nominating organization, you're out, end of story. But in a situation where, as we have that the moment, is your term limited but the appointment of new chairman is going to clash with the fact that the last members of the committee are about to be reappointed and by no means certain all these people are going to get reappointed.

What I'd like to see happen is in the event we've got that kind of situation that, if there's an existing chairman who would be able to stay on for another year, we give them an extra year, a fresh mandate, with fresh people on the committee who's in a position to then then run for the next two years or three years, whatever the term is going to be as chairman.

DUANE WESSELS:

I see, so you're proposing to extend the chair's term as needed to have a smooth transition.

JIM REID:

Exactly.

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DUANE WESSELS: As long as the person is still appointed.

JIM REID: Exactly, let's not change the variables here.

DUANE WESSELS: Okay. Geoff, please.

GEOFF HUSTON: I have trouble, Jim, trying to understand the conditions under which the chair's appointment would be extended. I can understand what you're trying to do and that's fine but it's not clear in my head, what would the circumstances be that would extend the chair's role. You're sort of hypothesizing but I don't understand the specifics.

JIM REID: Well, this is the situation we're exactly in at the moment, Geoff. Duane's the current chairman, he's term limited and technically speaking, he should be chairman now; but, [inaudible] agreed to stay on until such times we can sort out a reappointment process and the problem is that, as you can see looking at the diagram here, several of these people who are due for reappointments are about to -- well, certain members of the committee are either going to have their reappointments confirmed or else they're going to be replaced by somebody else and [inaudible].



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If we have a new committee, which is eventually got a majority of people who have never sat on RZERC before, we want them to be in place a year or so before they could potentially become the chairman, rather than have a new committee with new people and have a chairman with no prior experience with RZERC.

GEOFF HUSTON: Thanks for that clarification.

DUANE WESSELS: Yeah, okay. Regarding myself as the current chair, my initial appointment was March of 2017 and we should have had an election before March of 2019, we did not, so I agreed to continue serving. Also, with the stipulation that if I am reappointment as the chair, then it would not extent my term limit. But that's something to talk about in the next item as well. Jim, what you're proposing and if others on the committee agree, it sounds like maybe this would need a little bit of update to the procedures document to formalize that.

JIM REID: I think so, yes.

DUANE WESSELS: I could see updating the procedures in a way that provides us that flexibility but also we may be in a situation where we might have a current chair that only needs to remain the chair for a shorter period of time, not a full extra year but a short period of time.

JIM REID: I wasn't suggesting, it would be up to a year, depending on the circumstances.

DUANE WESSELS: Right, I think that's reasonable. Any other discussion about this before we move? Obviously, we have some folks who aren't here on the call, so we'll need to get their input on the list or some other way.

Okay, to summarize what I've heard on this meeting, we're sort of agreed to not try to force appointments to a certain schedule that benefits RZERC, so we'll let the appointing organizations chose their own schedules and appointments and we will make a modification to the -- propose a modification to the procedures that gives us some flexibility in having chair continuity. Thanks everyone.

We'll move on to the next item, which is the Chair Election Procedures. As Danielle sent out in email a while ago, we opened the nomination period on January 17<sup>th</sup> and that was sort of chosen to give us about a month before the next proposed meeting in February. The nomination period closed on February 11<sup>th</sup>, which would be a week before the meeting on February 18<sup>th</sup>. That's where we're at right now. As far as I know there have been no nominations formally put forth, is that correct Danielle?

DANIELLE RUTHERFORD: That is correct.

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DUANE WESSELS:                   Okay. As I said, my first term as chair should have ended in February of 2019, I can state that I will put myself up for the chair position again and if elected than, I would suggest that my second term end February 2021, rather than February of 2022. Is everyone alright with that plan?

JIM REID:                           Works for me.

DUANE WESSELS:                   Okay. Moving on to the next item. We had this discussion on the email list a little bit. Geoff, I don't remember if you were fully onboard for some of this discussion so I'll recap. As I said before, last year we took a break from our regularly scheduled meetings and when we started to get back into it, it was a little tough because we were A, out of the habit and hadn't exercised certain things like using the Zoom Room and what not and we had some difficulties.

So, what I'm proposing is that we schedule recurring, regular meetings, once a month, if there are no reasons for us meet, no items to discuss, then that regular meeting would be cancelled, but I feel it's important to have a date blocked off on folks calendars so that we don't spend a lot of time doing Doodle Polls and things like that. Along those lines, there is a Doodle Poll to try to choose a monthly date and time for us to meet.

Again Geoff, I don't know if you had access to that Doodle Poll. Looking at it today, there have only been four responses and Howard, I see

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yours is just question marks, so I'm not sure what that's about. I would very much like us to select a regular monthly meeting time and be able to put this behind us.

DANIELLE RUTHERFORD: I was going to clarify; Howard's are question marks because originally there were different times proposed but we updated the time slots available.

HOWARD ELAND: I'll update those.

DUANE WESSELS: That makes sense, thanks. If everyone on the call can go to that Doodle Poll and maybe I should paste it in the chat for Geoff, I'll try. Kim, I see your hand is up.

KIM DAVIES: Yeah, I just wanted to make the observation, I put yes if needed to all the time slots. For me, all the proposed times are conflicts but if this is set sufficiently far in advance, I'm happy to try and arrange things around it. I think the key is just to set these dates weeks in advance where possible.

DUANE WESSELS: Okay, thanks. Also, note that this Doodle Poll, the choices are only Tuesday's and Thursday's at certain times, one of the things not on the

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Doodle Poll is which Tuesday's and Thursday's of the month to choose. Previously we had been meeting I think on the third Monday of the month and so I would suggest people consider the third Tuesday or third Thursday of the month but we can make adjustments if it benefits someone.

Meanwhile, I think we should still and absent any other information, I think we should still plan on having of February meeting on February 18<sup>th</sup>. I guess that'll be at the end of the Agenda too, we'll talk about that later. Any last discussion or administration before we move on?

Number six on your Agenda is Potential Work Items. Some of these had been previously mentioned. I believe first one, Signing Root Servers .NET is something that Brad brought up in November. Since Brad's not here, I can speak a little about this.

The fact that the Root Servers .NET Zone is unsigned is something that has been discussed a little bit in SSAC and maybe RSSAC as well and we've been talking about it at VeriSign whether we should do this, sort of tentatively on our roadmap of plans to do. I guess the question before RZERC is whether RZERC would like this to be a formal work item and would like to provide it's input on this particular topic? Open for discussion if anyone has thoughts at this point, you're welcome to make them. Geoff.

GEOFF HUSTON:

I appreciate I'm new here and I'm not exactly sure to what extent this group gets involved but in my mind, this is part of the framework of securing the DNS and single point of hierarchical trust and once you

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manage to manipulate Root Serves .NET, you open up a series of vulnerabilities.

To my mind, it's an important thing to do, that given, should RZERC say anything about? Well, to some extent, the more folk that say this is a good idea, the more, if you will, there will be impetus to actually get it done. If no one says anything, my suspicion is nothing will get done. I'm in favor of putting this as a working item and putting something out there to say, "Let's do it." Thanks.

DUANE WESSELS:

Okay, thank you, Geoff. Anybody else? Alright, I guess we'll take this to list and see if the folks that are not here have any thoughts but given this discussion, it sounds like there were no objections to RZERC taking this on as work item, so for now, I guess we'll plan on doing that.

Next on Potential Work Items is something that I brought up again in November. There's an internet draft that I've been working on called Zone MD, this is Message Digest for zones and it's currently -- it's adopted by the DNS Opt Working Group and it's in working group Last Call. I have to say, the Last Call is not going as smoothly as I thought it might.

There's been some pushback and it looks like this draft will have to go through another semi big revision. This maybe a little bit premature at this time, I don't feel like it needs to be in RZERC Work Item right now but if other people are interested in formally taking it on as a Work Item I would support that but to me it feels like maybe it could wait a little bit. I open it up for comments from anyone on Zone MD please. Jim.

JIM REID:

Specific comments on Zone MD. I think if we're going to look at these potential Work Items, it may be a good idea to go back and have a look again at that exercise we had a couple years ago, on potential topics that we decided or thought then were in our scope of RZERC. Maybe circumstances have changed since then, it was a couple of years ago.

I think it would be helpful to try and remember where have a rough consensus of things that matter in and out scope for us and other areas where we didn't have any kind of consensus. I think it would be useful to revisit or to recover the whole issue of the Root Zone Resigning thing again. There was a fairly strong feeling with that exercise was carried out, that key rollover would not be in the scope for RZERC and there were some voices in the last months that have disagreed with that previous assessment.

I'm not saying whether it's right or wrong but I do think it would be useful to go back and have a look at that again and bear that in mind [inaudible] to pick up potential new work items.

DUANE WESSELS:

Thanks, Jim. Certainly, one thing that would be easy to do is, is to share again the results of that exercise that we did but I'm not sure, are you maybe also suggesting to repeat the exercise and get fresh answers or you just want to see the old answers?

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JIM REID: Well, I think the old answers will really do for now and if we think these are no long correct or we've had a change of heart, then maybe we'll have to do that exercise again at some point. But I do think we've kind of got a lot of [inaudible] going on here, that may not be justified and think we go back to the initial baseline before we start thinking about jumping into new pieces of work.

DUANE WESSELS: Okay. One thing I should maybe explain in case it's not obvious about the Zone MD Internet Draft is, one of the reasons it maybe useful for RZERC to comment is because this is adding a new record type to the root zone that's not currently there. This is some senses, changing the content of the zone.

JIM REID: And if I remember correctly, that was one of the things we felt was in scope for us.

DUANE WESSELS: Yeah. I will take an action to share that old exercise results that we did. Geoff, I see that your hand is up.

GEOFF HUSTON: I would actually argue that this is almost core scope for RZERC, in so far as, what RFC77 R6 did, was tentatively suggest a change or architecture to the root server system, that instead of putting the entirety of the authoritative information behind the subset of servers at particular



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addresses, it actually allowed anyone to offer authoritative answers, as long as they were able to do a zone transfer. DNSSEC of course, made that verifiable.

The missing link of course is, if you're trying to extend that architecture, while each of the constituent root servers can be assured that it is getting the master copy at the right time, from the right source, everyone running 7706 has no such assurance. If you want to actually change the architecture of the root system, to broaden it out and actually admit an entire halo of secondary 7706 page servers, it is almost critical that those servers have some way of understanding that the information that they've obtained in their serving is the real deal, is accurate, is verifiably current and the right information.

To my mind, this is an evolution of the root system in an architectural sense, you've just opened the room up to everyone. In some ways, the architectural implication of that evolution is pretty profound.

If this isn't in scope, I don't understand what would be because this seems totally around an evolutionary manifest beyond gender for the root server system and quite frankly, signing it and making sure what you get is accurate, should be core to this group. This is the right work for me so. I would actually strongly say in favor, I think this is actually in scope, timely and relevant for this group. Thanks.

DUANE WESSELS:

Thank you, Geoff and thank you, Jim. As I said earlier, it's still a draft and realistically probably half a year from RFC status I would guess.

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Should RZERC wait until it has RCF status or do you think we should get a head start on this? Geoff.

GEOFF HUSTON:

I think the need is undeniable with this particular implementation, with the new resource record type, is the chosen way from the IETF is almost secondary to at least getting started on the reason why this is a necessary piece of work and it's really the mechanics of the signing that could be delayed until an RFC comes from the IETF saying, "We like these mechanics, as distinct from a whole bunch of other potential choices." But I certainly see no reason to defer that work on architectural design of the root system while we wait on particular mechanics.

DUANE WESSELS:

Okay, thank you. Alright, any other discussion on Zone MD or otherwise securing root data? Kim.

KIM DAVIES:

Just adding to Geoff's comments. I think I would draw a fairly clear distinction in my mind between Zone MD as a technique to doing and the broader implication of RFC 7706 or what Zone MD would enable. My question I guess or my observation is maybe, if we're going to tackle the broader question of maybe calling Zone MD as the issue is perhaps constraining, I think a little bit, I don't know what RZERC's appetite is for the broader question.

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That's the only thing that jumps out at me. I agree that Zone MD because it's the new RR type would be consistent with our earlier discussion about being something that RZERC should consider but I haven't really thought about it as an enabler for this evolution of root zone distribution.

DUANE WESSELS: Alright, thank you very much. Howard.

HOWARD ELAND: It might actually be easier to ask if there's anybody that disagrees with it. It sounds like we're -- I'm hearing lots of consensus here. I too think that it's something that we should look at. My only question is on timing. Once it's through the iterations, hopefully it gets to the point where we have ratification, we'll then have quite a bit of time before things are actually implemented and plenty of time to get our two cents in as far as how it will impact the root zone. To me, I think my answer is yes but not now.

DUANE WESSELS: Okay, thanks, Howard. I'm just making some notes. Let's move on to the next one. Item C is that RSSAC is updating its history of the Root Server System Document. This document, I forget when it was initially written, maybe three years ago or so.

This last paragraph, the dates at the top, so November 2016, was when this document was published by RSSAC and this final paragraph of the introduction says things that are not mentioned in RSSAC's history

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document, including any discussion about when the root zone became signed, when IDN's were introduced, when new gTLDs were introduced, so it's very hands off with respect to contents of the zone.

Within RSSAC there was a discussion that maybe those things are interesting to document as a history but maybe not have RSSAC do it but maybe RZERC should do that. I promised to bring this suggestion for a Work Item to the committee. Essentially, the proposal would be, the question before us is, does RZERC want to undertake writing a document of the history of the contents of the root zone, which would talk about things like DNSSEC and IDN's and gTLDs? Jim, please go ahead.

JIM REID:

I think this is completely out of scope for us. RZERC should produce this document if it's got to be updated and maybe we could comment on it, once they've got a draft [inaudible] but we should not be producing documents like that.

DUANE WESSELS:

Alright, thank you very much. Geoff, go ahead.

GEOFF HUSTON:

I tend to agree with, Jim. I think RSSAC's throwing the dead cat over the cubicle wall and I'm not sure we should be catching. It doesn't seem to me to be in scope of what a group that's trying to focus on the coordination aspects of evolution of the root zone and documenting the previous content and decisions made around the root zone itself, seems

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to be looking 180 degrees the wrong direction. So, no out of scope for me, thanks.

DUANE WESSELS: Thanks, yeah. I don't feel like it's the dead cat necessarily and I don't know if RSSACC will undertake this work or not but I think they wanted to give RZERC first right of refusal on doing the work. This may or may not happen with the update of RSSAC's document, I don't really know. Howard, your hand is up.

HOWARD ELAND: Only if each individual in this group get's royalties on the book.

DUANE WESSELS: Alright, you'll be the agent to make sure that we get our royalties.

JIM REID: To be honest, I think this would be more appropriate for the RSSAC Caucus if RSSAC doesn't want to do it itself.

DUANE WESSELS: Yeah, indeed. The RSSAC Caucus or RSSAC may undertake this, I don't know. They just wanted to make sure that RZERC did or did not want to do it before they started the work.

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JIM REID: I think we don't do this at all. In any case, much of that historical information will be in the hands of [inaudible] root server operators.

DUANE WESSELS: Sure. Kim.

KIM DAVIES: I concur with the assessment this really doesn't seem like it's part of RZERC's area of specialty. That being said, do we know where the impetus behind collecting this history is coming from? Is there a specific mandate that it be collected? That's my first question.

DUANE WESSELS: Do you mean the history of root zone contents?

KIM DAVIES: Right, is it a just nice to have, that we might agree that it's nice to record this history or is there a specific requirement this information be collected?

DUANE WESSELS: There's no requirement that I'm aware of or no mandate, it's just I think some people like to think about it and said maybe it should be written down somewhere. Just a nice to have.

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KIM DAVIES: I think practically, a lot of the information around these projects that are out scope for the root server history are best known by my team and Duane, you're team at VeriSign and I suspect a practical retelling of the history or all these projects probably would more so than root server history, require VeriSign and ICANN to work together to produce the bulk of the editorial and perhaps being reviewed by the community. That's just a practical observation on how I think documenting those kinds of projects would need to happen.

DUANE WESSELS: Yeah, sure.

JIM REID: I think another aspect about this need for history information is a little bit morbid. A lot of the key players who are evolved in this are getting on, some people are coming up for retirement soon, [inaudible]. So I think there's maybe a [inaudible] from somewhere, I don't where, to try and capture this information while people are still around and can still remember all that information.

DUANE WESSELS: Yeah, indeed. I think we're pretty clear on that, that it's out of scope. Either myself or Brad will convey this back to RSSAC at the next meeting.

Returning to the Agenda, there's really only one thing left, which is our next meeting date. We are proposing February 18<sup>th</sup>, which is the third Tuesday in February, it would be at the same time as this meeting, I

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believe, 11am for me, different times for everyone else. Is that going to work for most of us?

Alright, I see a checkmark from Geoff, so that's good. We'll plan on meeting February 18<sup>th</sup> and again, please don't forget to do the Doodle Poll so that we can set the recurring meeting time. I'll give you one last call to make comments on the call today before we adjourn, anything? Alright, thank you very much everyone. We will see you in a month.

**[END OF TRANSCRIPTION]**