
SUE SCHULER: Okay. Thanks. Okay, Jim.

JAMES GALVIN: All right. Thank you, Sue. Hello, everyone. Good morning, good afternoon, good evening. This is Jim Galvin from Afilias. This is the Registry Stakeholder Group DAAR Discussion Group. Welcome to David Conrad and Samaneh and – oh, John Crain joined us this time, too, excellent – where we are having a discussion about our draft report that we are putting together. As we all know, in the spirit of cooperation, we really do plan to, in some way, publish this report but we do want to work with OCTO. We're trying to avoid any surprises here. We've been having some really good discussion thus far about DAAR in general and suggestions about it and we want to continue that. So we're trying to just ensure that our view about our findings and recommendations are aligned with their thinking and what they've gotten at our discussions.

So let me just quickly review where we came from last week and then we'll open for any additional discussion from last week that anyone wants to have additional questions. That includes from David, John, or Samaneh, if you want to follow up on anything in particular, that'll be good. Then we'll jump right in to walking through the recommendations as we proposed them here. Again, our hope is that these recommendations are not complete surprise as is, but certainly we do want to have some discussion about what they mean, make sure that we're in agreement about that. Also, we're hopeful as we go forward from this point, we'll actually execute on these recommendations and begin doing that together. To the extent there's some analysis there,

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we'll get to see some of that with Samaneh prior to the stuff becoming live.

In the findings we went through last week are our five findings. We had some excellent discussion about them, emphasizing some points that were important to us. We got some important questions from Samaneh in particular. We emphasize the notion of the phrase "reported abuse activity" as opposed to calling this definitive DNS abuse or abuse in any way. OCTO had asked for some clarification on our comments in Finding 1 about weighted scale and what that means, and so we will expand on that in a future version so that's more clear.

Another comment that I noted here was this distinction between new gTLDs and legacy gTLDs. It's still kind of an open question. Samaneh or David, actually, I think had talked to us about their reason for wanting to make that distinction and they're certainly willing for some continued discussion from us about not continuing with that. So that's still an open question. We expressed concern about whether that distinction is really valuable or not, and we need to continue to look for some facts and evidence to support either side of this. They need to have the starting position on what they've done here and probably for the moment they want to continue with that.

Then Finding #5, the last question that I had noted was that we make the findings that there's really an inconsistent understanding in the community about what DAAR is and what it shows. And we've had some fair amount of discussion I think last week about some of the issues inside of that. I think there's more work to be done here. I think we all recognize that. I think that OCTO has done some changes to the reports

up to this point. I'm keeping this particular finding and detail of it an open question. Maybe we can expand on this a bit and say things differently. We'll talk more about this issue when we get into the recommendation. Some of the later recommendations are specifically about advice about the messaging. The messaging goal on the descriptive website sort of lays all the context out as well as inside the individual report. And when we get into talking about those details and what we might do there, I think that will help us in Finding 5. Maybe we can expand there on what we really mean in that finding and better set stage for the recommendation, and hopefully we can make all of that make sense. So we still consider that an open question as to whether or not we fully understand the text there, which is to lay out some support for this inconsistent understanding and we'll continue to say more about that as we talk about the recommendations.

That's my quick summary of last week. I invite anyone to raise their hand either to correct anything that I said if I got it wrong, or if you want to take this opportunity to ask questions or expand on anything, this is the opportunity to do it so that we can [inaudible], otherwise, we'll [spend] doing the recommendations. I'm not seeing any hands up and no one is jumping in. I'll be quiet for a moment. Okay, I find it hard to believe I did that stellar a job, but people are probably just going with it for right now. That's okay.

All right, so let's jump in to the recommendations then. I can walk through those and speak to some questions and see if we've got an understanding of what they all are and what they mean. So right at the top we have Recommendation #1. The recommendation – there should be a display of the volume of reported abuse activity by type of abuse

based on the percentage of the total number of domain names with reported abuse activity. Then Recommendation 1-A is about doing this and doing it in such a way to show [inaudible]. I'll just put out here and I'll look for anyone else who wants to add more specifics, but this, I believe, is already actually in place at present. The percentage that are given are about the names that are with reported abuse activity and it's just about showing which types of abuse are more prevalent than others within the context of the presence of abuse, which are the ones that are active in any given time. And we are looking in Recommendation 1-A that actually split this out and show it for each of the types of abuse over a 12-month period to show the trends over the type of abuse. Because certain types of abuse, we do believe do come and go. They grow interest and decrease in interest because of circumstances. We'd like to be able to see that and have that be visible over time. So let me pause there with Recommendation 1.

Thank you, David. I see your notes in the chat. So I certainly do appreciate your time and your ability to join us here for this amount of time. I will offer to you, David, if there's anything in particular that you want to make sure we cover before you drop off, please do feel free to indicate that and I'll be happy to jump to that, to take advantage of the time that you have.

DAVID CONRAD:

I think John and Samaneh will be able to cover anything that I might have a comment on.

JAMES GALVIN: Okay. Sounds good. Thank you. Again, folks, Recommendation 1 and 1-A, I think we're pretty well set there. I hope that that seems pretty specific. At least it's understandable; they don't really have any questions there. Thanks for saving me, Samaneh. Please go ahead.

SAMANEH TAJALI: Hi, everybody. First of all, thanks for the recommendations. I went through them all and they all sound good. Any question that I would be asking would be just for clarification to make sure that we are on the same page about that.

From Recommendation 1, I understand the meaning or what you guys had in mind was to report abuse, basically to report what percentage of the domains are abused in each security threat category, is that correct? Is that the correct assumption?

JAMES GALVIN: Yes. Yes, that's correct. Yeah, I guess you're using the term "security threat" in the DAAR reports at this time and that's what's in the Spec 11 3(b). I think we have some interest in maybe changing the term "security threat" but we'll come back around to that.

SAMANEH TAJALI: Yeah, exactly. It's written that percentage of total number of domain names with the reported abuse activity, and that you mean if you check in the report Figure #7, which is a pie chart, it is showing percentage of domains that are in each category of abuse activity as you call it here, out of total number of domains that are in the all of abused domains. Is

that what this recommendation is describing? Or is it describing something different that we do not capture at the moment?

JAMES GALVIN:

You are correct. It is something which is there and already captured. I'm actually bringing this up here quickly to myself just to get a quick thing – so Figure 7, right. Yes. So Figure 7 actually represents what you're doing now and that's correct.

SAMANEH TAJALI:

Okay. What you had in mind was the actual count, not according to what Kurt says, not the percentage out of the overall number, the actual count of domain in each abused activity category?

JAMES GALVIN:

No. Actually, our suggestion really is to focus on percentage. In general, we have a preference. We think the percentage is actually a more useful thing to look at rather than absolute numbers, because absolute numbers can be really strange for really small and really large TLD – and I realize that even percentage can look a lot of times – absolute number has a greater probably we think of looking especially awkward as compared to percentage. Does that make sense?

SAMANEH TAJALI:

Yes. That really makes sense, although sometimes percentages could also be misleading in cases, for instance, where something that actual real count is very small but the denominator and the nominator are

small. For instance, if you say certain gTLD has 100% abuse and the total number of domains in that gTLD is 5, and 5 out of 5 is listed, basically, and it will report 100% although it is all of it but it is a bit misleading. It's kind of overselling the actual count. Sometimes half of them side by side give more inside than each. But that is a different point. I just want to make sure that I understand it correctly because in the chat, Kurt mentioned that the recommendation is about volume of names, not the percentages. So at least Recommendation 1 is about percentages and what is already there in Figure 7, so that we've covered.

JAMES GALVIN:

Right. Let me just say two things. Speaking directly to Kurt's point, in general what we're trying to do – I think the messaging part of this is to explain that we're showing volume and we're showing that volume based on percentages and their presence. I don't know. Maybe that's trying to overthink this a little bit, but I think you understand what we mean. And I agree with you, Figure 7 gets to what we want.

The second comment that I would make – you're right that neither showing absolute numbers nor showing percentages is going to be perfect in all circumstances. I mean, there's just awkwardness, there's plenty of awkwardness to go around in both sets of numbers. What I would offer – this is just me personally speaking – I think that when you have a situation where the percentage really is the awkward number, I think the frequency with which percentages is awkward is less than the frequency with which the absolute numbers would be awkward. But I think that you can easily accommodate for that. When you're producing the reports every month, I'm sure that you look at them and you review

them even though they're automatically generated, and that's your opportunity to explain when something looks anomalous to be able to say something about it and add that explanation as far as the report, right? That's sort of your subjective review and analysis of what's there. We do think that's important too, and we would expect that you would do that. Let me give Samaneh a moment to talk and we'll come back to Kurt. Samaneh?

SAMANEH TAJALI: This was an old hand, Jim. I just put it down. But I understand your point. And indeed, as we have discussed earlier, we do review manually. I do review manually and we are planning to add addendum in cases where there are outliers or additional explanations are needed.

JAMES GALVIN: Okay. Thank you. I'm sorry, Kurt, please go ahead. I didn't mean to put words in your mouth and if I didn't get that right, I'm sure you'll fix it. So go ahead, please.

KURT PRITZ: Thanks. I just wanted to agree with Jim. And I type faster than I thought, but instead of comparing the percent of abuse to the other kinds of abuse like the pie chart did, we thought to compare the percent of abuse to all registrations. So it's exactly how Jim put it. Thanks.

JAMES GALVIN:

Okay. So if we get all of that with this Recommendation 1 then Recommendation 2 is ... Basically, Recommendation 1 is against all delegated domain names. So it's about showing the volume of abuse activity throughout the system. So rather than just taking a close look at particular types of abuse and the distribution of the types of abuse and the trends of the types of abuse, now let's move in to looking at the volume of abuse against the overall system as a whole. So, how much does a particular type of abuse appear versus the entire system and each element in that way? So it just changes the denominator. Essentially, it's really the distinct difference between Recommendation 1 and Recommendation 2.

Kurt, I didn't notice if you took your hand down, put it back up. Did you want to talk again, please? No? Okay. Samaneh, does that make sense? If anyone wants to add to what I just said there, or Samaneh, does that seem clear to you? Do you have any questions about Recommendation 2 and 2-A?

SAMANEH TAJALI:

No, no. I think now it's clear for me, because initially I was a bit confused when I read it because I thought Recommendation 1-A, the trend one and the current one is already included but Recommendation 2 not. That's a good one and we could also include it and it's clear for me. By delegated domains, you mean the domains that are in the zone files, right?

JAMES GALVIN: Yes. That would be correct. And the emphasis there of course is that since we're using public feeds to identify reported abuse activity, you wouldn't be able to report any abuse activity on names that aren't in the zone file. So it seems only irrelevant to talk about delegated domains as opposed to registered domains, right? So that's our distinction.

SAMANEH TAJALI: Good.

JAMES GALVIN: I also want to add – this seems like a good time to add – you do a lot of other analysis in the report with respect to the names in terms of how you do other kinds of breakdowns and look at them. Our intent here with these recommendations is not necessarily to take away certainly anything that you're doing. These should be seen more as additions or changes where relevant. We're not at all suggesting that you would remove anything that you're doing per se, although you might change what you're doing based on some of these recommendations or add to it. I just wanted to put that out there, too.

Okay, so that's Recommendations 1 and 2. I think that the next set of recommendations as we dig into these is where it starts to get a little bit more interesting. Recommendation #3 is probably the first one of this here that gets a little interesting. We talked a bit about this before, and so we make a little bit of a suggestion here on how to do this and we really just want to hear what you have to say about this and what you think about where we're going.

The goal in general is it's trying to display some kind of measure of the persistence of the reported abuse activity. The implication here is that as domains come on and off of the feeds then that reflects that something has happened, some kind of mitigation has occurred. Now, it may or may not be mitigation that a registry or registrar took, but nonetheless, some mitigation happened, whatever that was. It seems appropriate to take a look at the fact that mitigation does happen and we want some way to show that and demonstrate it. So it seems interesting and important to somehow collect something which gives you some kind of measure of how likely or how long a name remains as reported abuse activity. Now, we all know that even itself is not a perfect measure. There are some different kinds of ways of doing this. We offer a couple of suggestions here about doing this. Obviously, looking to also do some of the usual things that you do anyway, Samaneh, about describing the characteristics of that distribution, whatever that happens to be, and we assume that you would do all of that. Part of the problem here is it's only a trailing indicator of persistence of the reported abuse activity. Part of the problem gets back to one of the findings earlier about the quality of e-data. The feed provider all have the rules about how names get on lists, how names get off lists. I mean, the management of their list is kind of their proprietary thing, and that obviously affects the value and quality of this particular number. But again, we still think that this number has some value in trying to do it. In addition, certainly part of what would need to be present is an explanation of the quality of this number as part of the general production of a report. So I apologize, I kind of jumped in there and [caught] on some of the context that goes with it. But let me come and wrap around to the key feature and then look for a reaction from

you, Samaneh, on what you think about this recommendation. I know that we've talked about it before. Displaying the measure of the persistence of the reported abuse activity, is there a way in which we can keep track of how long a name remains on a feed and track that, and then of course create some display about that over time? Samaneh, please go ahead.

SAMANEH TAJALI:

Thanks, Jim, for all the explanations. This one I have to think a little about it. Indeed, it's a very interesting metric from my point of view. It comes with its downsides and what I am afraid a bit is that once we develop it – and I will talk about development after this – it requires very careful messaging. It's one of those things that if the messaging around it is not clear and it's not communicated several times, then it will bring another issue to what people already hate about DAAR is that we are trying to measure mitigation with something that is not mitigation. And you've already pointed out some of the issues out. We only see a domain once it's listed and let's say that we call it persistence of listing or we emphasize on the fact that you are only measuring the amount of time that a domain name is listed, different blacklists have different timing schemes and we do not have a unified measure to say this domain has been listed for phishing this amount of time. Because basically, the abuse metrics that we have in DAAR are aggregation of several lists per threat type, and once we are only talking about occurrence, what we already have in DAAR which is if something is listed or not, we do not necessarily need to take into account the way they list things because we are only saying presence or absence. But once we start to measure persistence, their methodology for listing

really affects this. This is one issue I wanted to raise, although again I want to emphasize that this is a very interesting metric that we could list all the issues and brainstorm whether to solve them or not.

The second thing that comes to my mind is aggregation problem. Let's say that we develop a metric as we call it persistence, we need to average that per domain per list, and then in order to be able to include it in the report because our development analysis, these gTLDs, we need to average it again per gTLD. So there will come several layers of aggregation which also comes with its own errors. Again, there are scientific ways to resolve that. I'm just raising possible issues.

That's it for now. Maybe I will stop here and see what is your opinion about this and then we continue further.

JAMES GALVIN:

I think for me ... Kurt has his hand up. Let me let Kurt go. I'm trying to take notes and also had a thought. Kurt, go ahead, please.

KURT PRITZ:

Thanks, Samaneh. We've had the exact same discussions, and Sean and Rick and others on this list have pointed out the exact same problems you have indicated with different reputation providers react differently when an abused name is actually taken down. For us as contracted parties, this is a key issue for us because our contractual obligation really goes to mitigation of abuse and not prevention of abuse, and the whole determination of whether contracted parties are doing an adequate job with regard to DNS abuse has to go to how fast

these names are taken down. So absent the ability of us to wrangle all the reputation providers into reacting the same way and reacting to when a name is taken down, which we think is impossible, we think it's really important for us to indicate as a result of the study that – the DAAR, because it relies on reputation providers, in fact does not measure the efficacy of contracted parties in addressing DNS abuse and that we need to do the exact sort of thing you're talking about is making this a separate effort and brainstorming how to measure that. So this recommendation is here as a metric of this and is also below in the communications portion of it. Thanks.

JAMES GALVIN: Thanks, Kurt. Rick, go ahead, please.

RICK WILHELM: Just briefly, I'll mention a point that we had mentioned in our discussions as a group and that is that the reputation providers, since their job as reputation providers is protecting their customers, they are of course not necessarily incented to pull names off of the list because a name that is on the list helps to protect their customers of the reputation list and the name that's off the list no longer protects their customers from that name, and so that name later becomes problematic in the future and they have taken that name off the list, it will in fact of course harm the reputation provider, and so they have an interest of course in making their list effective. Therefore, they're not necessarily intended to take names off a list. So that's important for the reputation providers in the efficacy and effectiveness of they're doing

their job and what they are hired to do, but of course that is not necessarily the reason that the DAAR exist as a measurement device. Thank you.

JAMES GALVIN: Thanks, Rick. John Crain, you have your hand up. Go ahead, please.

JOHN CRAIN: Yeah. I'll take my hand down before I forget later. There is some interesting metrics here. What I don't see in the recommendation – and I might be missing it because it's early in the morning here – is the measurement of names that are on lists but don't necessarily resolve. I think one of the ways we could measure the persistence is not just the persistence of them being on the list but also the persistence of how long they resolve. So a name could remain on a list but no longer resolve and therefore may or may not have been the effect of an action by a contracted party. Now, I don't know if we can do this in DAAR or not, but it is something we should think about and we're all thinking about measuring. Persistence is very important. As Rick points out, the reputation feeds themselves have a different business model. So maybe the place to measure that is not per se just in the feed but also in the resolution process.

JAMES GALVIN: Thanks for that, John. You know, I hadn't really thought about that and I have to say the distinction that you just made, at least by my recollection, is not a distinction that we had made in any of our

discussions here in this group. But it is kind of an important one when I think about it. I'm not sure what to do about it. So just to be very clear for all of us here, the distinction is that sometimes mitigation that happens, especially with registries, if registries are going to act and actually mitigate directly, the only mitigation that a registry directly has control of is to take down, which means removing it from the zone file. But if you remove it from the zone file, that doesn't necessarily mean that it's going to be removed from the reputation feed. So there are names of the reputation feeds that may no longer be delegated. That's an interesting data point because we have always been talking about this at least here in terms of calculating percentages and averages and such based on delegated names and the list there. So it's not actually pulled out that distinction for ourselves even [inaudible] it. So that's probably a distinction worth making. I would think – I've actually made a note here about that particular fact – that's probably something worth exploring. I think in the spirit of just trying to figure out which data point, which statistics, which metrics actually are interesting. At some level, you can't just have to compute them and you got to start looking at them and watch the trends. You have to do a bit of data analysis over linear to see what turns out to be important and what's not. So it's probably worth having that number. In fact, we here might think about expanding our recommendation. We'll have to give some thought to that and having some other discussions here ourselves. We might think about wanting to expand into including the recommendation explicitly to make that number known, because presumably you'd be able to see that. You'd know if you've got a name on a list that was not in the zone file and it would be worth calling that out and counting that in some way. You might count that as a mitigation element or it might actually

just be deserving of a separate count. It's used to just to take note of that since you don't really know what happened. It could've been mitigated, it could've been deleted. There's a lot of checking that have to go on there to really know, so maybe just having to count is a good thing. We'll have to think about that and I appreciate you mentioning that.

What would I say in summary to all of this? I set a question for Samaneh first. Samaneh, you made a comment early on that you had some concerns about aggregating data that adds errors. I was trying to capture that, the moment that you were saying it, and I dropped something there to quite capture all of that. I wonder if you could say again what you were trying to say there so I could make sure that I captured that point and take note of it? Because at this point, I really don't understand what you meant by that. If you could say more about that, I'd appreciate it.

SAMANEH TAJALI:

Sure. I talked about – let's say if we decide that we would like to develop persistence metric, the metric would be per domain and we would be measuring average amount of time that a domain remains on a list, so per domain per list. Then we need to average that out again because basically the starting point would be domain and we would like ideally to end up on a gTLD level. So my point was that for this metric, we need to do several layers of aggregation and let's say that we would average. We would average per domain per list, and then average it over a gTLD. When we do these averages, every time we take an average, we introduce a certain margin of error, which might be fine if

the distribution is normal and if you're capturing the middle point. But it might introduce errors in the cases where the gTLDs – the distribution are very skewed towards certain persistence, certain times, etc. My point was that this is something to think about. It's not something that we cannot solve. It's something that I'm actually quite familiar with, but it's just a point to think about whether we want that or if we decide to develop this metric. Was it clear?

JAMES GALVIN:

Yes. Thank you for that. That helps me a great deal. Now I see the point that you're getting at. I see Kurt's hand but let me play this back a little bit just to make sure that I really did understand it and I capture it. You're actually thinking about this in terms of determining the average lifetime, if you will, or persistence of a domain name being on a particular list. If a domain name appears on multiple lists, you then have to take each of those averages across those lists in order to get an average for that name, which you then have to roll up into an average for the TLD per names on the TLD. I think that's the process that you were reflecting. So we're starting at an average per name per list. So let me just confirm that I ... yeah. You said, "Indeed" in the chat room. Thank you for that. Okay, good. So I understand that. Kurt, please go ahead. I wanted to try and summarize some of the suggestions but, Kurt, go ahead, please.

KURT PRITZ:

To go back to Samaneh, yes, as indicated in the second part of the recommendation, the shape of the distribution is very important, for

example, we just come back with one number and average that, say, 5.5 days then we'll just have another argument whether that's a good number or a bad number. But the shape of the distribution will really tell us about the properties of the persistence. So if it's a bimodal distribution where 80% of the persistence is one day and 20% of the persistence is 20 days, that would tell us something completely different than a mean of 5.5 days. So I think without knowing the shape of the distribution, just the mean number, it's not particularly helpful in describing the problem performance or actions that might be taken. Thank you.

JAMES GALVIN: Samaneh, please go ahead.

SAMANEH TAJALI: I fully agree with that, correct indeed. I see that the second part of the recommendation partially captures that to explain the characteristics of the population. But again, that is something very important. It is something that is hard to include in the report per gTLD because there are so many. I think this item needs a lot more thinking and more discussion so maybe we can pick this up later and also to think whether DAAR would be a place to do it.

JAMES GALVIN: Thank you for that, Samaneh. I guess the place that I wanted to go to next is I wanted to think a little bit about next steps, for this recommendation in particular. We certainly appreciate that there's

some work involved in doing this as compared to the other recommendations and you've acknowledged that yourself. So I did want to ask you, you did suggest that you seem to understand this, and I sort of think that you were hinting at the idea that you are moving in this direction, although it isn't clear whether you actually have started doing this or you know that you will do it. But we do think that this is kind of important. In many ways, this is probably one of the more important recommendations. These recommendations are not ranked per se; they're listed according to way they seem to flow as opposed to significance. But if I had to pick one that I thought was kind of important in addition to the messaging one, this one pops right up to the top.

So really, I would like to get some indication from you about next steps with respect to this. We don't expect you to jump on this and have it in the next report coming out. Frankly, we're not even 100% sure what this is going to show if we start going down this path. Again, in the spirit collaboration, if it would be possible to start going down this path and start doing some of this, we'd love for you to do that and we'd love to see that and talk about it and see what it shows. It will certainly influence what the messaging needs to look like, which are some of the future recommendations that we're going to get to here. And it may actually tell us other things, as you've said yourself, and as Kurt was just highlighting. I mean, as we get into understanding what this is really showing, this may tell us different things, we may want to go ask in a different way, the specifics of what we actually put in a report may change. So I wonder if you could speak a little bit to your interest and availability in going down this path and sort of working this as the weeks flow by here. Thanks.

SAMANEH TAJALI: Thank you, Jim. Yeah, I think we have discussed this previously with you also and among ourselves, we discussed the issues and the downsides. And we are open and happy to experiment with it for ourselves and also in discussion with you guys. So I would say that maybe we can put that item for to-do and to be discussed in future sessions and not something that would immediately happen for the DAAR report, different from other recommendations.

JAMES GALVIN: Okay, thank you very much. I think what we'll do here with respect to this one in particular and just to close that out in terms of next steps is we'll wait for you to drive this. In the following way, we really are interested in where this is and what it looks like. So we very much like for you to take this on in some appropriate way that you can and then bring to us as you begin to develop some results, bring the discussion to us at an appropriate time when you've got it. Again, it doesn't have to be a finished product. We're certainly to experiment with you and happy to see an experiment that's incomplete as we start to do things. I'd like for the next step here on this one to be that you thought of an action to do something in this regard and bring that back to talk to us about as we begin to see what it shows. Okay?

SAMANEH TAJALI: Yes, sounds good. Something that I remembered I wanted to raise earlier but I somehow forgot was that – just to recap, basically, how we generate the DAAR reports is that we get a certain type of data set a

month basis from our contractor, which is in a certain shape that we agreed with them. That does not include the shape of the data that we require for such a metric yet. For the exploration phase, I don't think we need all the data. We can just use our own blacklist sources that we have on our own servers. But that's also another thing that we need to deal with on a higher level. I just wanted to raise it.

JAMES GALVIN:

Okay, thank you. I certainly do understand that in order to do data analysis, you need your data in a workable format. So, I appreciate that you might have some concerns or issues there that you need to address. Thank you for just alerting us to that. I appreciate that you're going to need some time to resolve those kinds of issues too as part of moving forward in doing any additional data analysis.

Okay. I'm taking a look at the time and I'm looking at the other three recommendations here. Honestly, what I'm thinking about, given that we've done a pretty good technical dive here on these first three recommendations, they really are more on the technical side. The remaining recommendations really are more on the messaging side of things, and our opportunity and willingness to offer to you that we're willing to work with you or whoever to move forward and capture these things. I'm actually thinking at this point that this might be a good breaking point and save the remaining two recommendations for a meeting next week. But let me leave that on the table here for anyone to respond to. Samaneh, if that's an old hand or if it's a new one, if you want to just jump in and otherwise we'll ... It's an old hand, okay. Rick, you have your hand up. Go ahead, please.

RICK WILHELM:

This Recommendation 3 that's in here, I think we might have a version control issue on the document because I thought that Recommendation 3 we've been talking about here was moved to a proposed or possible future recommendation based on one of our recent calls with the group, and that this version that we're looking at here doesn't agree with the version of the document that I've been looking at that was sent over to ICANN earlier. That this Recommendation 3 here was moved down to the planned or possible one or candidate, I think we've got them termed. Because this [Pareto] is the thing that we've been talking about, right? Sorry. Thanks.

JAMES GALVIN:

You're absolutely right, Rick, apologies. I was not closely tracking with what Sue was displaying there. I apologize, Sue. Really it should be Recommendation 4 that Sue has got displayed there, that we're talking about. In fact, even that ... Sue, that's not actually the right version of this document to display. I don't have a link to the document, Sue. I guess we kind of talked about this last time, because I had turned it into a PDF that we had sent to John and Samaneh and David. You really need to find that PDF to display directly. Because the version of the document is the one that I'm actually working with online here, which has got all of the extra stuff in it which as Rick was pointing out, we kind of moved to the bottom because they were just under discussion yet. They weren't consensus points yet. Maybe the best thing is just go back to the agenda for the display for right now.

You and I will do a much better job next time. Sue, it's not your fault, I apologize. We should prepare better for what we're going to display here and make sure we've got the right thing. So now you've got that up, which is great. So if you scroll that down to the Recommendation 3, well, now we'll be looking at the right thing and that'll work out well. Thank you, Rick, for noticing that.

John, the next version – you actually have the right version, John. The PDF that we sent to you is the right version. All we're really talking about here is what's on display. Obviously, we have a working document, which has got some data in it, because we have some other things that we're talking about that we haven't reached consensus on yet. That's what Rick is pointing out, is we were just displaying a version that had more information than what we wanted you to have. So you didn't see any of that, John, that's what you're supposed to be acknowledging. And he was reading the screen, right? Okay. I apologize. Kurt, you have your hand up. Go ahead, please.

KURT PRITZ: Sorry, that was an old hand.

JAMES GALVIN: Okay, no problem. In any case, now we're at four minutes of the hour so we're even in a better place. A few minutes ago, I was suggesting that this would be a good spot for a break in our discussions because we're going to be moving off of a technical discussion into some messaging discussion points. So I think I'd like to propose that we just pick up next week and we'll finish the three recommendations there. We'll obviously

offer a slot in the beginning for any additional clarifications, questions that people come up with between now and then. Let's just sort of keep our dialogue going.

In addition, what I'd like to offer as a homework here, maybe this is more to OCTO at the moment to think about, when we come back next week and we go through the rest of these recommendations, we do need to think about next steps and how we want to approach next steps from our point of view. This is an opportunity for you to respond to that or you can just think about it and come back next week. We're offering this to you. I've certainly taken on board your comments in our discussion, we'll continue to do that. In the spirit of the first three and the recommendations for looking at new presentations and new metrics and stuff, we leave it to you to drive that. Would really look for you to pick that up, go through that in whatever order you can and bring data to us to talk about so that we can have an exploration of what's there. We'd like you to give some thought to what you imagined as a timeline in a way in which we might do that. We do weekly here, so we'd like to keep doing that. But if you want to change that cadence, because it would be better for you, certainly open to any of those options as far as that's concerned.

When we get into finishing the recommendations next week, there'll be some discussions specifically about some messaging recommendations. We do understand that all of that is not completely under your control. You've said that to us before and we do understand that the website has its own path here or management. So we'd like to have some ideas and some discussion about what's the best way for us to work together in having some thoughts about the messaging. We are volunteering to

find a way to work with you or whoever, in order to have some discussion about what the messaging, what really we think needs to look like and how it's enhanced. So we'd like that opportunity. Anything that you might bring next week as a suggestion for next steps would be great.

John, you had your hand up, and I saw you tried to put it down but go ahead, please. I'm going to put you on the spot.

JOHN CRAIN:

I was just going to say and I think everybody knows this, when it comes to the technical stuff, we have a lot of leeway with the engineers and do that. When it comes to the messaging stuff, we are going to have to run this by other people. In my mind, this is still a closed under embargo conversation, which is really just Samaneh, David, and myself. So at some point, maybe we can discuss this next week, we need to figure out how we bring other people into the discussion. Maybe next week is too early for that, but at some point we're going to need to.

JAMES GALVIN:

Okay, thank you. Understood. Certainly, we've raised that point before. We do fully appreciate that there is going to have to be greater exposure as we dig into this. So we'll have to think about exactly what that means and how to manage that to the extent it can be managed. We all know how these things go.

JOHN CRAIN: Yeah. And that can take some time. Dealing with our communication flow isn't something that happens overnight. It's just a matter of finding the right balance of when we bring those people in versus how long it's going to take.

JAMES GALVIN: Okay. So in the meantime, next week we'll get a chance to talk about the elements of what we're looking for in the messaging and at least get a reaction from you on your support or preferences with respect to that, and then we'll talk about where to go from there.

Okay. We've kind of hit the top of the hour here. Let me just ask quickly for Any Other Business. Let me just confirm that John and Samaneh, let me just say, if you have an objection to meeting with us next week, just to say something. I'm not seeing hand, hearing voices. Okay. Thanks, everyone. We will meet again next week with John and Samaneh and David if he joins us too, and we'll continue with the recommendations. I appreciate all of your time. Certainly, John and Samaneh and David, I appreciate your time especially. We are adjourned.

SUE SCHULER: Thanks Jim. We'll stop the recording.

SAMANEH TAJALI: Thank you all.

UNIDENTIFIED MALE: Thank you all.

[END OF TRANSCRIPTION]