PRAGUE – Replacement of the WHOIS Protocol
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Patrik Fältström: So as we have a lot of things to talk about, and I specifically would like to see a lot of discussion at the end of the session, let's start, even though we are still missing one of the presenters. We are waiting for Olaf Kolkman on the other end. He's a little bit late on the agenda, so we'll start anyway.

So welcome everyone. Patrik Fältström – I'm Chair of Security and Stability Advisory Committee and we have more or less on our own taken on the task of trying to see what we can do to coordinate the work related to the WHOIS here in the ICANN community. There have been a number of different kind of cross-constituency work parties going on, work being done and other standards of organizations related to WHOIS and the question is whether…

And we all know that this has been going on basically since the WHOIS protocol was invented which was quite a large number of years ago as it is one of the oldest protocols there is out there that we are still using.

One of the documents that have been created related to this is the Security and Stability Advisory Committee document No. 51 and we'll start by getting an update on the roadmap on implementing that.

As I recognize almost everyone in the room, I think a lot of people already now about this, but let's do just a brief recap. So WHOIS is important for the community, but as all of us know, a lot of people

mean different things with the word WHOIS. And an example of, as I said earlier, there are many different things that have been happening.

For example, the SSAC has produced many different kinds of documents related to this and one of the things that we've done during the years, starting with SAC 027 is to try to point out that the term WHOIS itself is overloaded and can mean many different things. It is also the case that the availability of the WHOIS service is something that is part of various contractual agreements all around the world, not only in the ICANN community, related to domain name operation.

So what ICANN's Board has done is to task the staff to produce a Roadmap Team command to this, the recommendation SAC 051. So the Roadmap itself says that it was the decision on 28th October 2011 where the Board directed the staff to forward SAC 051 to the various advisor committees and support organizations for their device. On February 18, the draft Roadmap was posted for public comment and on June 4 the Roadmap was posted there. And now over to Francisco and Steve from ICANN.

Francisco Arias: Thank you, Patrik. Hello everyone. Just before I talk about the Roadmap I just wanted to quickly go through the highlights on the SAC 051 Report, what is the intent of this report that was published by SSAC. Basically three things: to clarify the taxonomy as I said of WHOIS as Patrik mentioned before. The work is overloaded and used in many contexts they mean different things; and also make some observations on the taxonomy; offers a set of recommendations mainly to replace the protocol.

The taxonomy - there are a few terms that are proposed in the document, for example, to use Domain Name Registration Data to refer to the data that is usually published on WHOIS and is registered by Domain Name Registries; also to refer to the protocol itself that transports that data, for example, the WHOIS protocol or the Port 043 WHOIS. This would be the Domain Name Registration Data Access Protocol. And to refer to the service which would be the collection of the protocol plus the policies and configuration that a specific provider will offer – that would be the Domain Name Registration Data Directory Service.

The report also makes some observations on the progress that exists. For example, there is no uniform data model for the data that it has basically a different model for the data shown on the protocol.

Also the deficiencies of the protocol, for example, the lack of ability to handle internalized data in non-ASCII data. Also the lack of (inaudible) to satisfy perhaps different levels of access to the protocol… to the information – sorry.

So the report contains three recommendations – basically to adopt the terminology – that would be one; No. 2 – to replace the WHOIS Port 043 protocol; and to develop a uniform standard framework for accessing the data.

As Patrik mentioned before, the SSAC sent this report to the Board under the request of the staff to develop a Roadmap to implement these recommendations in consultation with the community. What we did is to publish this draft Roadmap a few months ago. When it went for public comment, we received some comments and as a result of

that, we put a revised version of the Roadmap on 4 June a few days ago and I will tell you a little bit about what we have there.

First a little bit of the current environment – there has been several things in the ICANN sphere regarding the technical side of WHOIS; for example, the GNSO's WHOIS Service Requirement Report, (inaudible) requirements. For example, they need to have support for internationalized data, standardized replies, etc.

We also have the Joint GNSO-SSAC IRD Working Group that is more focused on the contents on what should be the… what data should be internationalized in the WHOIS or should I say the Domain Name Registration Data Access Protocol. In this report – the final report of the Working Group – they have a similar recommendation to replace the Port 043 WHOIS.

And finally on the context of the Affirmation of Commitment, WHOIS Policy Review Team in their final report they don't call specifically for the replacement of WHOIS, but they are making some recommendations that basically imply the need to have a protocol that supports internationalized registration data so you need to replace the protocol in order to implement a few of these recommendations.

So what is the content of the Roadmap? On the first recommendation which is the terminology, this is a change that we made on the Roadmap as a result of the public comments received. Some of the commenters said the proposed terminology was a little bit long or too complex for the common user so they suggested to have a small group of people to shorten the length, to come up with an abated proposal in the terminology that would be adopted.

So intention here would be to assemble this small team with participation from different groups – for example, SSAC, the IDC, the BC groups here in ICANN, the registries, etc. Once we have that updated terminology, we will prepare a summary that will be shared with staff and different supporting organizations and advisory committees so they can be aware of this proposed new terminology and the idea is to have a slow transition to the new terminology. For example, having the old terms and the new terms between parentheses for a short period of time and eventually transition fully to the new terminology.

Then in terms of replacing WHOIS which is the other two recommendations – they can be seen together as replacing WHOIS – here there are a few things that we are recommending on the Roadmap – first to promote the participation of registries and registrars – ccTLDs and gTLDs – in the development of the protocol to replace WHOIS within the IETF. There is already a Working Group that was formed a few weeks ago. Olaf is going to talk about this shortly.

And then also to initiate a GNSO PDP with participation from other supporting organizations and advisory committees with the intention to develop by consensus policy to replace the WHOIS protocol.

Also in the Roadmap there is the proposal to negotiate inclusion of provisions in gTLD registries' and registrars' contracts as appropriate to require the use of these new protocols. I can mention that last Saturday the .com contract was approved by the Board and in that contract already contains a provision that VeriSign agreed to and that is to foster the development of the protocol and eventually adopt it once it's standardized which is I think a very good thing.

Then we have in green there a new item that we added as a result of the comments we received in the public comments which is to establish or contribute to an Open Source project to develop an implementation of the new protocol.

We have acted on that already and we issue an RFP – a Request for Proposals. We received a good number of interested parties in develop these very good proposals. We are in the process of evaluating them and we expect to have shortly a selection, so we will have these Open Source implementations available for registries and registrars to use so that hopefully we'll know [better the landscape] for registries and registrars.

Finally in the context of ccTLDs, as some of you may be aware, there is no possibility to do a policy development, at least not inside of ICANN to require ccTLDs to do this change. So the way forward will be to promote the voluntary option of ccTLDs. This is just a graphic representation of how we think that the process will go in terms of time and I'm not sure we really need to go into detail here.

So the next step basically here will be to submit this revised Roadmap for the ICANN Board consideration as they were the ones that requested this Roadmap. With this, I will turn to Olaf. Thank you.

Olaf Kolkman: So yes, my name is Olaf Kolkman. I'm Working Group Co-Chair of the WEIRDS Working Group. WEIRDS stands for Web Extendible Internet Registration Data Services and obviously I didn't become Co-Chair because this looks good on your CV, being WEIRDS. [laughter]

I am Co-Chair together with Murray and what this group is is a group that has started to standardize a single data framework for WHOIS services that can be the service over a RESTful API using HTTP. I'm going to explain this a little bit more in a slide or two.

We're following general requirements from earlier work done in the ITF. There have been a few tries, so to speak, to standardize alternative to WHOIS protocol, one of them was… the acronym reads Cross-Registry Internet Service Protocol – CRISP – was one of these trials and requirements were drawn up at the moment a protocol was developed and this is one of the input documents into our work – that set of requirements.

One of the failures or one of the perceived reasons for failures of earlier tries of protocols was the difficulty of implementing. For example, IRIS is a rather complex protocol with its own transport mechanism with its own schema and so on and so forth. The Supporting International Registration Data – those things were pretty difficult in earlier trials.

So what we're trying to do is produce a simple and easy to implement protocol supporting internationalized registration data and specifically for the name registries and capturing the needs of international domain names in the data model.

One of the things that we want to enable is differential service. So based on client authentication, there is a fairly good idea of how it is going to work – basically use HTTP authentication and base answers on whatever comes out of that layer. And on the top of the protocol we use a RESTful implementation.

Now what is RESTful? It's sort of word of art so to speak. It's a software implementation model and basically it's a software implementation model that made the web, the internet. It uses phrases like – or verbs – like get, put, post and delete – and resources that you represent by URIs and get them, put them, post them, delete them from hyperspace.

With all this magic this might sound difficult, but in the end it allows you to phrase WHOIS type queries as URLs and I've got two examples on the slides here. One is an example where you query the abuse contact for an IP block and the other one is where you want to see the registrant name. Whether these are going to be the exact semantics and syntaxes of the end protocol, that remains to be seen but this is sort of the idea.

Working Group is going to be interesting because this is a protocol that is intended to be developed for both the name space users of WHOIS as well as the number space users or the WHOIS. You might know that the Regional Internet Registries use WHOIS as well for contact and abuse information and so on and so forth.

Now that makes for interesting dynamics in the Working Group and that is also realized in the charter. The number space is a fairly little amount of players. There are five RIRs; they are fairly good contacts and all this works and obviously in the name space there are multiple stakeholders. There is a ccTLD; there is a gTLD constituency, so to speak; there is clients; law enforcements; registrars; registries. There are a huge number of players and we have to find a consensus within that space because one type of protocol and one sort of type of implementation probably serves the internet at large.

Now the pace with which the number people have developed prototypes have been astonishing and there's running code. ARIN has produced an implementation which they have put in production and in fact, the amount of queries that they receive over there – RESTful Web Service – so implementing a sort of prototype for this protocol – is already higher than the amount of queries they receive over traditional WHOIS Port 043.

They've documented all this into drafts and those drafts are input to the Working Group. I'm working from the assumption, by the way, that most people know what the ITF is. The ITF is the standards organization that has as a mission to make the internet work better and it's the organization that has developed various protocols like the DNS protocol; like IP; like TCP and many more.

They meet three times a year and work takes place on mailing lists and working groups. For each working group there is a mailing list and working group chairs and so on and so forth. If you want to know more about the ITF, visit the website – www.itf.org. This is where the work is taking place.

Obviously there's an elephant in the room. One of the questions that the working group needs to solve is what is the data model that is going to be shipped over this protocol. What are the elements of information that need to be represented and how can we standardized them? How can we fit them into a single framework? What type of encoding do we use, for instance, for time stems? What type of internationalization do we apply, for instance, for email addresses?

On the other hand, the working group needs to be very careful not to make policy decisions that should be made elsewhere. For instance, it is not up to the working group to say that if you create a protocol and you get an answer, there must always be a telephone number with the contact. That's not for the working group to say. What the working group should do that if there is consensus to represent phone numbers, then that's the way to represent phone numbers should be standardized and that's all the working group is supposed to do.

In that context I often think of a paper by Dave Clark and all which is called *Tussle in Cyberspace: Defining Tomorrow's Internet*. It's a paper [in circulation] since 2002 and if you have never read it, I would read it. It basically says that if you develop protocols, you have to make sure that the tussle can play out in the policy world, so to speak. And for me that is an inspiration in chairing this working group.

What is the state of the working group at this moment? We've just started to work. We're promoting… the way that the IT works is that people submit ideas through internet drafts and those are called personal drafts, personal contributions. The working group is adopting some of these personal contributions as working group documents so we can gain focus on specific documents and try to improve them and work towards publication of them as SRCs. So some of these personal contributions are now being promoted to working group documents so that we have focus. And we're trying to figure out what the way is to tackle that definition of the data framework because that's the actual work that needs to be done.

The plea to this room, to the people who are interested in this is please contribute. We have had two birds of a feather session – those are preparatory work – Andrew Sullivan who's in the room here – was Chair of those both – and those resulted in the chartering of the work group in June. And the first face-to-face meeting of this work group will be at the IETF in July in Vancouver in four weeks.

If you want to contribute, the best way is to write, to review and/or to implement code. Rough consensus and running code is what is always the sort of goal within the ITF. If you want to participate, here are the coordinates. There is a webpage dedicated to the working group; it can be found through the URL on this page. That contains pointers to the charter; it contains pointers to the working group documents and it contains a pointer to the mailing list and the mailing list is where the actual work takes place.

If you want to participate, I suggest that you read the archive. There have been I guess about 700 messages by now – that's doable in a couple of days – reading through that to get the gist of why we are where we are at this moment. And that concludes my sort of goal for participation. Thank you.

Jim Galvin: Thank you. So I'm Jim Galvin; I am Vice Chair of the SSAC and SSAC just recently published a new document – SAC 054 – which is a suggestion, a proposal for a Domain Name Registration Model and we just heard Olaf describe how the WEIRDS Working Group in the IETF is somewhat dependent on knowing what the data model is that it's working with.

When Francisco was talking, he reminded us that SAC 051 SSAC had previously, spoken about the need for a data model and if you're keeping up on all of your ICANN documents and all the activities, you'll recall that the IRD Working Group has also made a request for a data model for registration data in ICANN and of course, the WHOIS Review Team also made a request in one of its recommendations for the production of a data model.

All of these requests for a data model are dependent on creating a uniform and extensible and standardized reflection of the kind of data that one needs to have when you have a domain name in order to manage that domain name throughout its life. So SSAC has in an effort to kick off these discussions and give the community a place to start, has gone through the process of proposing in this document a straw man registration data model.

And what we did in part was to reach out to existing documentation – registry agreements that exist today; escrow agreements that do exist, especially in ICANN and the gTLD world and of course, the work that's been done in the Internationalized Registration Data Working Group and what we know about ccTLD requirements.

Probably a very important point to make about this document is that it makes no policy assertions as Olaf was describing about the IETF work, SSAC is also a technical body so all we're doing here is proposing a basis on which that policy work can be initiated and carried forward. And one of the things we've been doing in general at ICANN this week has been reaching out to groups and describing this work and looking for them to pick it up.

I think, having listened to the others, we all know why this work is important and with respect to this particular group, I think that what's interesting about WHOIS is it was a legacy protocol. It's been around for a long time and it sort of moved in and was adopted and just simply used in the ICANN community for the purpose… for multiple purposes.

What we're trying to do here is in a way back fill and going back and saying, "Well, the work really should be based on a data model." And that's really what we're trying to do here is create that standard base structure, extensible data model and this… we're hoping if this work would pick up and continue, would facilitate discussions about directory services which is essentially their placement for the WHOIS protocol and it would allow for overall an improved user experience because now you would get all of the things that you need in order to handle internationalized registration data.

As is well-known about the WHOIS protocol, it really doesn't handle non-Latin-based characters in any effective way and certainly not in any standardized way. A variety of [when oft] implementations and solutions do exist out there for using WHOIS to solve some of this problem, but a replacement – the work that's going on in the IETF – would certainly be an improvement in the community at large and the user experience.

So the method that SSAC used in order to develop this data model was to consider a typical life cycle of the domain name. This is significant because one of the first things we discovered as we got into this work and trying to develop this data model was realizing that there is no

uniform life cycle for a domain name and in fact, we decided and realized that this is really ordinary and expected.

Although there's a fair amount of uniformity among gTLDs because they all tend to be contracted parties with ICANN and so they tend to be done the same, there are still a few registries even in the gTLD community that have specific requirements that are not present in all registries. CcTLDs on the other hand, there tends to be a fair amount more variability in how they handle their domain names and the life cycles that exist.

So rather than trying to suggest that there should be a single uniform life cycle, we realize that there really doesn't need to be one; it's simply more important to have an enumeration of the data elements that are relevant to the life cycle of the domain name and in fact, you can have a menu of all of these data elements and then separately you can have policies that you would develop to support the life cycle that's appropriate for your registry.

But what is important is that once you have a definition of the element, when more than one registry uses the same element, everyone knows what they're working with. So you have a uniform specification of what that element looks like.

Our typical life cycle simply amounts to a name which is available for registration; it then comes into existence; it's used and there are some events that occur during that usage. The name expires; we include a grace period here before it's released and then available for registration again.

This is another level of detail about what a registration might look like. It includes the existence of a registrar, although obviously that doesn't exist in all registries and it wouldn't have to exist even with the data model that we're proposing here, but a registrant would typically ask if the name is available; if it is, they go through the process of registration.

And what you see here in the bottom right-hand corner of this slide is also an indication of the kind of information stores that need to exist when a name is registered. So you've got your WHOIS or a directory service kind of database that has to exist so that there is some access to the registration information to the general public and other constituencies; you have DNS database that has to come into existence, so the ability for the name to resolve so it can be used for websites and other purposes; and of course the registry has to have some kind of database or information store about the transaction itself, the fact that this name exists and other information that's relevant to it.

So what is the data model? It's an enumeration of data elements. From our point of view we're trying to be descriptive, not prescriptive. Again, it's not an indication of the elements that every registry has to have; it's simply a numeration of those things that would exist if you were using the events that the data element is relevant to.

So what we did in our data model was create a set of events that might exist in a typical domain name life cycle and then, looking at those events, we looked at the information that we need to be present in order to support that event. And so that's what the document shows is a collection of data elements which would be optional in the general case and separately what registries would do is to create a profile and

that profile would be based on some polity that registries could decide what needs to be present or not need to be present or the circumstances under which it would be present.

But what's most important is you now know the details about the data elements; you completely define it. So you can imagine the sort of obvious things like you know what the format of it is; you know what its length would be – minimums, maximums; you could include specifications about language and scripts, any cardinality that might be essential; any encodings that would be used and of course, any other protocol specific data that might need to be present when this element is used within the registry.

So probably the essential point here is that there's one single data model; it is a menu of data elements that would be present. What we've done is suggest that you drive this from the point of view of a life cycle. So for your registry you have a life cycle for your domain name; there are events that take place and you look for the information that you need to support that event and then you look at this menu for how that element is described and that's how you draw that in.

And then you have a policy within that profile which specifies what needs to be present. And all the data model does is tell you what that element looks like, thus, this standard availability of the elements allows you to look for, to separately talk about directory service specifications, so it facilitates the work.

In the IETF you now have this data model; now what the WEIRDS Group can have is a protocol which – once presented with data which is described by a data model. It makes it very straightforward to know

what to do with it and how to present it and what your options can be. You can also have separate files for escrow.

And going back to directory services, it would be possible to have separate profiles for different kinds of directory service access. So whereas WEIRDS is focused on the WHOIS replacement, so public access information, it would be possible to think about having a separate profile for law enforcement access which could separately specify different access control and authentication requirements; you can have different files for access by intellectual property communities. So it separates those discussions and allows you to create different requirements and thus different solutions for them.

Our specific recommendation in this document is reaching out to all of the SOs and the ACs in the ICANN community to look at this data model and consider whether or not it's complete and comment specifically on its utility. We have essentially proposed a framework by which this data model could be used. So we've realized that what's most important here is to have a uniform and standardized definition of data elements and allow the communities individually to develop whatever profiles they need to satisfy their requirements.

So this separates the gTLDs from the ccTLDs – they can each have their own profile or multiple profiles. We suspect in the gTLD community there'll probably be one single significant profile that most will use, but there are always registries with special requirements that will need some additional elements or impose some additional requirements on them.

And again, as we said before, ccTLDs are probably the place where there will be the most variability and this allows them the opportunity to create whatever policy they need for managing their own life cycle as far as future work is concerned. So given the challenge of harmonizing the two models, it isn't actually necessary that that be a goal, given this single data model.

So the next steps from here are to ideally create some working group, a cross-group working group. We'd like to see a uniform and single data model developed and all of the parties for whom this would be important and essential to look at this data model and agree on defining all of the elements that would be relevant to them and the things that they would use.

And what we're doing this week and as part of this particular panel session here is again, just reaching out to the community and making you aware that we have created this starting point for these discussions. And I just want to emphasize quickly that it's not prescriptive; it's simply a description of what could be possible and a place to star those discussions with all the relevant communities. Thank you.

Francisco Arias: Thank you very much. And that moved us 10 minutes early into a discussion. So anyone that… Okay, back there, to my right.

Jeff Neuman: Thanks. Hi, my name is Jeff Neuman; I'm with Neustar. I have a couple questions. Thanks for the presentation. I did come in a little bit late. I was at a different meeting; I was the Chair. So if you can go… the one

question I have is just repeating some comments I've made in different fora but just so everyone has it for the record.

The first comment is on… both comments are related to SSAC 051. Actually I have three comments – two that are SSAC 051. Well, I certainly appreciate and definitely think from a personal viewpoint that we should change the terminology for WHOIS because it means different things to different people.

The one thing I had asked and just wanted to point out here is we need to look at existing laws, existing statutes and treaties because they do use the term WHOIS. And as much as we internally in the ICANN world and the IETF world want to change the terminology, we need to see the ramifications of doing that and the one thing that would be worse than using a term – a loaded term like WHOIS here – is using inconsistent terms in the world. I know it was probably discussed because it was given at other presentations of we have to look at those types of issues. So just want to reiterate that.

The second thing on SSAC 051 – it's not actually on SSAC 051 but in the Roadmap – I don't know if you can go back to the slide that has the different milestones and the different steps – but in that milestones and steps, I think the first two steps are actually completely backwards.

The first step is - let's get legal agreement from all the registries to agree to adopt a protocol and the second step is let's work on the protocol. To me that's completely backwards. As a registry, there's no way that I'm going to agree legally to adopt a protocol that hasn't even been developed yet and I think that's kind of indicative of ICANN as an organization which focuses on the legal aspects first; technical second.

So that's not really an SSAC issue because that wasn't in the SSAC report but that's certainly in the Roadmap. And the registries as a group as a whole, as well as the registrars that we had a discussion with yesterday oppose that in the Roadmap.

So we would not like to see that go forward in the Roadmap. Let's all work together in a consensus way; work with the IETF and Neustar will commit to work with the IETF on the protocol but what we cannot do is commit legally to be bound by that.

And then the third comment – and I know there's a response – the third comment is on the data models and I made this during the registry presentation is that I almost feel like it's a little too early to finalize a data model when there's 1,900 new applications and a number of which suggest alternative data models, some of which don't involve all of those steps that are in the circle diagram, especially some of the single registrant TLDs for the brands are not going to go through that kind of similar life cycle. And while it's good to start a data model now, we all need to understand that that data model's going to change over time. So thanks.

Francisco Arias: Thank you very much. Bill, take your question as well and then we'll go back to the panel.

Bill Smith: Okay, Bill Smith with PayPal and also participated on the WHOIS Review Team. One comment – I remember one slide that said that the Review Team WHOIS Review Team implied that we need an internationalized

data. In reading recommendations 12 through 14, the terminology we used throughout our recommendations I believe is "should." Were this a technical group – I'm speaking personally now; I won't claim to speak for the WHOIS Review Team – that would be an IETF terminology – "shall."

So we made a recommendation I believe in the strongest possible terms that we could. We couldn't dictate that ICANN do this, so or us "should" was a "shall" really I believe. So the Review Team said, "ICANN has to do this."

I'll speak as PayPal now – it's unconscionable that we don't already have a data model internationalized support for in essence the WHOIS information that goes through this. This organization's been around a long time and we can't exchange information in a standardized way. That's… well, in a word, that's crazy. Thanks.

Francisco Arias: Even though I've been active in the ITF for about a million years, I actually went back to 2119 to really see the difference to remind myself of what you were talking about. So thank you. So any reflections from the panel on these two issues?

Male: So I want to go back specifically to the comment that Jeff made about it being too early for the data model because we now have hundreds of data models, perhaps 1,930 if one wants to look at it that way. I didn't respond to - in the Registry Stakeholder Group - Jeff, but I will respond now to that comment more specifically.

I think perhaps there might be some confusion between data model and data profile because what I would say is there are perhaps 1,930 data profiles proposed but in fact, there should really be only one data model and that's what's underneath all of those things.

All of those applications – the new applications that are proposed – they might add some elements that they might need, specifically for their registry, and those elements would simply be added to the data model. But one would expect that for those elements that are already defined in the data model, they would use those elements as defined. If they need a new one, then they would simply enhance or add to it.

In a similar way, this is essentially the EPP protocol in the way that it works. One could argue that EPP in and of itself proposed a data model that could be used because it's simply a set of elements that are important to the transaction of the domain name. And so what you've done for the elements that are optional in EPP – that becomes the profile that defines whether or not you include those things or not include them.

So there's really those profiles that exist and that would be a natural evolution of what we're proposing with SAC 054 in the data model is the fact that multiple data models could come into existence and be used. Thank you.

Olaf Kolkman: And just… I think it's useful to think along a division of data profile and data model also because it probably maps into organizational responsibilities. I would figure that the data model, so a representation

of data which elements, how to classify them, is work that will largely play over in the IETF while data profile might largely play within these circles.

Francisco Arias: Thank you very much. Andrew?

Andrew Sullivan: Hi, my name is Andrew Sullivan and I'm speaking as somebody who is working for Dyn or Dynamic Network Services. We are a registrar so I have two things to say. The first is if you are a registrar or a registry, I can tell you that my lab has implemented already a prototype of WEIRDS, even though we don't have a protocol yet. So this is not a big job and you should start work on it because it would be good to have early attempts at implementation in order to test out things that are going on in the working group so that we can have a more useful protocol this time around.

Because – this is the second thing that I want to respond to an earlier comment – if the registries and registrars are not willing to make real serious commitments, which probably means contractual agreements, now, those of us from the technical end of this who are working on the protocol are going to say, "Hey, you names guys, go away. We're going to work on the numbers stuff and we don't care about names."

We already did this work once before with IRIS and the danger is that those of us who have to do the review and do the writing of those documents – we're not going to be interested if we don't have serious

commitment to implement the protocol later. I know Olaf is not in a position to say this and probably isn't…

Olaf Kolkman: No, no, I am in a position to say this because the charter of the WEIRDS Working Group explicitly says that if this work doesn't finish in the timely fashion because of the names people or the names aspect I should say – not people, the names aspects of that protocol do not get consensus, then the number aspects will fly and get standardized, leaving the name aspects behind. That is explicitly in the charter, so you're right, you're spot on.

Francisco Arias: So we need to move a little bit quickly. Yes, sir.

Jeff Neuman: I want to just respond. Don't confuse not wanting to sign a legal agreement with not having commitment. Please, that's just a horrible thing to say and I'm glad you developed a prototype but have you implemented it in registries that have millions of domain name registrations? So they're totally different things. It's great to work on the protocol and you have Neustar's commitment to work on it but I'm not going to sign a legal agreement agreeing to adopt it without understanding the ramifications.

The second comment is to Jim – on the data model I understand what you're saying, but unfortunately in your paper you go into the registration life cycle as part of the data model. If that's going to be

part of the data model, then there's different registration life cycles and therefore, I don't see the distinction you're making between profile and model. If there is a registration life cycle part of the model or is it part of one of the profiles? If it's a profile, take it out of the model.

Jim Galvin: It's actually neither. The life cycle was simply put in there as a way to drive the existence of the model and that's the process by which one would create the…

Francisco Arias: Thank you. Can it please be short because I would really like to get as many as possible to talk.

Male: Thank you. To explain to Jeff, the life cycle's red herring – ignore entirely. What's called the data model, I would prefer to call something like a common data menu so that we can select from that to create our data profiles and do it that way. And to say it again, the life cycle is a red herring; it gets in the way, okay?

And to say to you a couple of things. There are a couple of interesting things that ccTLDs do that, for example, one of them asks you to declare what type of registrant you are with a menu of allowable choices that come from that.

The second thing is you mentioned a standardized format. I think if you're going to have something that is semantically the same such as a company registration number being used across different registries,

that would almost undoubtedly have a different format in every country in which it appears and so we may not be able to get that far and I think that might scare people if we start talking about common formats.

Francisco Arias: Thank you very much. Next.

Steve Metalitz: Thank you. Steve Metalitz with the Intellectual Property Constituency of the GNSO. I want to thank everybody for the presentations; I think this was very informative for me and I have a question for Jim which may relate to Jeff's question – Round 1.3(a) I think. Is the data model… I understand that not every element would be present in every situation and so it's not exhaustive in that way. But is it exhaustive in the sense that it's intended to include all the data elements that might possibly be needed, in particular situations?

Because if it is then I think Jeff's point certainly has merit, not just from the New gTLD registries, but also – again I'm looking at this in the gTLD environment mostly – but in changes in the Registrar Accreditation Agreement may require new data elements that don't currently exist or aren't used very commonly now.

So I guess my question is – is the data model intended to be an exhaustive list or simply an indicative list of the kinds of data elements that might be included?

Jim Galvin: I would say that the short answer could be yes, but I think that that's an issue that's for the working group that ends up looking at this thing and standardizing it to really decide how it wants to approach it, whether it's exhaustive or not. You can look at EPP and consider that it's not exhaustive; it allows an extension mechanism so that things can be created as needed and the data model would have exactly the same kind of thing.

So from a policy point of view, the group has to decide how it wants to deal with it and certainly if technology would allow you to do it in either way. It could either be exhaustive or just extensible as needed.

Bill Smith: Bill Smith; PayPal. So us technical types tend to talk in things like data models. I commend the SSAC for both SAC 051 and SAC 054. This is advancing a long needed discussion and it brings some, I believe, some very strong technical with a site line to policy without making policy to this discussion and that's really want we need to have.

I disagree with the proposal that we delay because we have 1,900 new potential domain names – that's kicking the can down the road because we know there will be another round of these applications and so the argument next time will be, "Well, we need to wait because there needs to be something else done." This is a moving environment; we need to address this problem; we should have addressed this problem, probably 10, 15 years ago.

I also suggest that in the presentations I've seen the model and everything I know about what's going on in WEIRDS, is there's talk of

extensibility. That means this was not fixed; it can be extended when needed… as and when needed. So I believe it is essential that we move on this; that we move on it now and this work is good. Please support it.

Francisco Arias: Thank you. Next.

Jason Polis: Jason Polis – Super.Name. So there's also data profiles which will be feeding data elements into the data model. Who's going to own the data model?

Male: I would say the ICANN community At-Large, so that would be something that would come out of… well, the ICANN community.

Jason Polis: So would that be owned by ICANN as an organization or by some other organization structure of some sort?

Male: I don't really want to answer that question. That's for the community to decide. What we're putting forth is a discussion point and a place to start the discussion so one could imagine that the GNSO and the ccNSO together need to own this data model in some way. I don't think I want to define what ownership means but you can imagine that they have to agree through a policy process on what is the data model. ICANN needs

to facilitate that in some way and I'm sure that ultimately it will find its way into requirements of some sort.

Male: Just a quick nod on ownership. I don't think the ICANN organization or the ICANN community in that sense – and one possibility, example would be to have an IANA registry that has the glossary of terms – that would be a way to implement that.

Francisco Arias: And the last comment from the back.

Male: It's not a comment; it's a question. Jim, I haven't read your paper, perhaps it's already answered. Is in the profile a time element included? For example, is it possible to see historic data too or historic state of the data?

Jim Galvin: That would be a separate step. I mean, once you have the data model, you cold separately define an archive service that now keeps all of this historical information and now you've got a standardized format for it which makes it easy for you to build various services on it like tracing that, doing historical lookup. So no, the issue of archiving is not covered directly in the data model, but that would be an obvious service to build around it in addition to building a registry around it, building directory services around it.

Francisco Arias: So with that, we're at the top of the hour, so thank you very much everyone for coming.

[End of Transcript]