Incident Response Working Group Meeting Dakar
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Attendees:

Luis Diego Espinoza, .cr
Isak Jacobsen, .fo
Antoinette Jonson, .vi
Hitoshi Saito, .jp (via telephone)
Zoran Vlah, .hr

ICANN Staff:

Bart Boswinkel
Kim Davies
Kristina Nordström
Gabriella Schittek

Luis Diego Espinoza: Welcome to this Incident Repository Implementation working group, this face to face meeting. My name is Luis Diego Espinoza, I am chair of this working group. And we invited Kim Davies from IANA because we need to talk a little bit, explain a little bit what we are doing. And maybe we can have some input from Kim about this.

This is our agenda for today. The first thing I want to do, and I need your agree on this, is change the working group name because the name, the contract name doesn't reflect the contact. The other thing we want is clarification on some contacts on this call, this working group, that we have been discussing (inaudible). Define some [consultations] to IANA and other organization about the role of the Incident Repository Implementation. And assign some tasks.

This is the proposal about the name of the working group. Right now it is called Incident Repository Implementation Working Group, IRIWG. The proposed name is Contact Repository Implementation. Maybe not too much different but more significant because we are not implementing an incident repository, we are implementing only a contact repository. Do you agree with that, Isak? Yes? Antoinette? Okay? Good.

Kim Davies: Is it contacts that perhaps are incidents or more general than that?

Luis Diego Espinoza: It's for incidents, but part of the idea you are here is because we can use it in more ways.

Bart Boswinkel: If the working group agrees with the change of name, I will say -- Diego and I will make sure that what happens, it needs to go through the council and I'll draft a

proposal so at the next council meeting we make sure it will happen. That's the way to do it, so yeah.

Luis Diego Espinoza: Sure, we can agree with only the people in this meeting or we need to send email to the council?

Bart Boswinkel: For the purposes of the working group itself, of course you can call yourself whatever you want. But say to make it work, it just needs -- probably I can do it by email through the council. They need to adopt the change. That's the only thing. So it's a procedural matter and nothing more.

Luis Diego Espinoza: Okay. Just give me a moment to send it to Kristina to put it on Adobe Room. [inaudible sidebar - off mike].

Kristina Nordstrom: Hello? Welcome to this meeting.

Hitoshi Saito: Thank you.

Kristine Nordstrom: We will upload the slides to the Adobe Room so you can follow.

Luis Diego Espinoza: Like you see on the agenda, we are proposing to change the name of the working group from Incident Repository Implementation to Contact Repository Implementation. Okay, some clarification of contacts. We need to agree with this to have a clear path to develop this. About the contacts database, maintenance (inaudible), and some about costs, too. I've identified these key procedures and processes. The first thing is the system by itself. The second thing is keep contacts updated. That could be the expensive part of the system. And after that, operation, management, governance and costs of the system. This diagram provides (inaudible) clarify very well (inaudible) the system in the environment. We have many entities from clients or users of the database. That could be the [CERTS] by example, a maintenance response team basically. And the information on the left side is about the contacts by itself, mainly the emergency contact information from TLDs.

And there's some other [actors] here. The [regular] organizations, is not really actors, but could be an actor. And we need to find now the role of ICANN in this repository.

The first thing is about the database by itself. Then we focus on the database, then we review how the system could be -- and there's a good thing that (inaudible) mentioned was about the incident tracker is a way that you can follow some of the access to the contact repository.

I want to be clear here, this is not an incident tracker by itself. The idea is not to keep all the incident track record and the user can follow the incidents here. No. It's only for the use of this contact information. But it's related with some (inaudible) and it's a good idea to have a tracking of this, but the idea is not to develop all the logic among the groups related to the management of incident data.

This is the data scheme provided by the former working groups that define which could be the data included in the contact repository. And this data is more like information, typical information of an (inaudible) book, with some variations. But typical information (inaudible) contacts. But includes not only electronic contacts, this will include something like phone numbers, fax and that kind of information. Language by example and the time zone and other data. But the thing is that we need to implement this information for each contact.

Then from my point of view, the system at the end is an (inaudible) repository, a (inaudible) server. Maybe using LDAP by example. LDAP protocol is very commonly used in directory systems. And that protocol includes information or that server implemented by that protocol includes all related replications, (inaudible) the solution of the data base, like a tree. All those things included in the LDAP protocol. The access and implementation provides really two things. One is (inaudible) that includes many contact information. This (inaudible) probably it will be very good customized data (inaudible) of an LDAP, because an LDAP server, LDAP repository to make information provided by the working group fit in one of existence.

I don't know if it is important or not, but for me, yes. There is many open source available software about this. And it is wide adopted by Microsoft, (inaudible), etc. Then the point is, we are not thinking about to construct a new information system from scratch to do a specific task. My proposal here is to use an existing software, very reliable, very proven, to implement this contact repository.

About data maintenance, we need to test a cleanup implementation. We need to test a data verify contact information and installation with some kind of frequency because this is a very important part in case of emergency contact information. This is to choose new contacts, removal of contacts, and here is a question for the group. Or maybe we can think about. How frequent should we test and update this contact information? If we decide to use frequency of that database very often, a very short time, we will -- that will increase the cost of maintenance, those fees. But if the frequency is very low, then decrease the privacy of the database because could be loss the real information very easily. Yes, Bart?

Bart Boswinkel: I think say if you look at this way, the real question is, how accurate should it be? And given say the function of the repository itself and why you want to use it. And I think the previous working group already made some suggestions that in principal it should be very accurate. Otherwise you step beyond the goal of why you want to create it. Otherwise it would be just another database. So maybe the first question, it's a derived question, the frequency, but the real question is, how accurate should it be?

Luis Diego Espinoza: I assume that should be very accurate, because if not, it not works. By example, we can mention that we can update each month or each three months or each six months. We need to think about how frequently it is necessary for this type of contact information to update constantly. As you know, by example, I don't know how frequently it is updated, the contact information in IANA by example. Maybe it could be a reference. If something like -- and yes, I suppose not so frequently, but -- yes?

Kim Davies:	Wow, I wouldn't look to Guyana for best practice simply because even if we know it's out of date, we're not often in a position to update it for political or unreachability reasons. What I can say is that our current thinking is, now that we have an automation system in place, is to send quarterly emails to all contacts advising them here's what's listed in the recent database, please review this. If it's out of date, please submit a change. But in terms of frequency of updates, I think IANA is probably -- you could do better, let's say.
Bart Boswinkel:	Say what has been looked at for instance by Europe and others, I'd say one of the solutions that definitely was very expensive, they did it once a month. And again, to insure the accuracy. And so I think if you'll have a standard, an acceptable standard or what is a required accuracy, that determines the frequency. And you have a bandwidth to look at it.
Luis Diego Espinoza:	I agree with that. But there is another element here, another, yes, another input here. The typical behavior of the contacts of the TLDs is -- I'm not so sure, but it's not changed that frequency that can change the contacts or the kind of infrastructure, by example ISPs or other infrastructure. But typically the TLDs doesn't change too much in contacts, I feel that. But I don't know. Bart mentioned that we have a reference from Europe, they update once a month information. And that's one of the things that made the system very expensive because the person that follows each of the contacts and look for each of the contacts and there's maybe -- I don't know if all the information, all the contact information or only part. But we need to think about that a little bit the kind of particular behavior of these contacts, how frequently they change. Because maybe we can think about update each two months for example. And for the TLDs, this could be a good thing Because I'm not so sure, but I think (inaudible) by example, not only has information of the TLDs, inside information of other infrastructure, other typical infrastructure, ISDs and so on.
Bart Boswinkel:	I agree, but just going back, I think that the starting point is the need, say the accuracy you need, and say derived from the accuracy you need, you have the frequency and as a second -- as a second step, you will see the costs. Say the higher the accuracy, the more expensive it is. And the more difficult it will be to maintain it. And again, that's a cost element.
Antoinette Jonson:	But isn't it the intent to have the system automated with an automated system? So if like Mr. Davies said, that whatever the frequency is, you send out an email and you say -- and it would be I assume kind of in that format because it's only going to people who have access to the system, it would -- I just don't see where the cost comes in, why it's so expensive. Because if you're seeing this as a contact directory, do these companies change their information that frequently? I would imagine there would have to be some good level of stability. And I'm just being very basic. I'm just keeping it real simple. Could someone just respond to me on that?
Kim Davies:	I don't know much about this, but I think that's exactly right. But the challenge is not so much the frequency of updates, the challenge is reducing the amount of time it takes to reflect the change in the organization. I think if you focus too much on we need to notify people every X amount of months to update, I think that's less important than encouraging a culture with the people that are in the

database that the moment someone leaves the organization, they have established a purpose to update it. So obviously that's not an easy task. But sending reminders every X months is probably, is part of it, but shouldn't be (inaudible).

Luis Diego Espinoza: Yes, about the example of IANA, it's only a reference. But in my point of view, the emergency contact information is critical in the way that in some emergency you don't have time to be looking for information, if information is updated or not. You must act quickly. Then probably for the effects of the contact repository for emergency, the accuracy, like Bart mentioned, is more important to keep it as much precise as possible for emergency than for other uses. Then the thing is, this contact repository could be updated more frequently and defined more frequently that maybe IANA needs (inaudible), this contact repository build contact database that must be updated constantly. It's better for domains right now. But the priority is to keep that information accurate and updated and it's important to review frequently.

Antoinette Jonson: Is there any industry statistical data on the frequency of how contact information changes? We could perhaps extrapolate from like a company itself? How many times they change significant -- I just kind of think it's -- I think there's an awful lot of attention being placed on something that -- I know that it has to be very accurate and I respect that. But it just -- I don't know, logically it just seems like, like Mr. Davies said, in that kind of processing that way, if a company changes a person in a very significant role, that's part of an emergency response, yet capacity has a very critical type of individual, so -- I mean, we have to follow up on every month, every week, I don't know -- it's not settling right with me.

Luis Diego Espinoza: I will give you a very simple example. In my domain that's here, the contact information for (inaudible) is not changing in I don't know 50 years, something like that. But for emergency contact, you should have a current phone number to contact people. And in Costa Rica in 50 years we changed the phone numbers two times, (inaudible) by example. But in what way we can know that this happens in other places in the world? It's very difficult. And probably they will forget to update information by itself and that is not information that can easily detect that they are leaving. The only way is to test the contact and try, if something is wrong, try to contact another way and to find and update the contact information. Yes, Bart?

Bart Boswinkel: May I suggest that what is very clear data maintenance, say again there are two options which are where we started. One is that it's outsourced and a second one that you build an organization from start, etc., to do this. A subgroup of this working group will start looking into this and come up with some recommendations. Say, you've got some requirements.   One is -- and maybe some open questions is one and we've already seen, let's say is data accuracy needs to be pretty high.

Second thing is, because of the data accuracy you come into questions of frequency, etc. That determines one factor of the cost. So if a sub working group is based on what we have here, we don't need to find solutions here, but come up with proposals or good items for discussion. And we can move on and take up the next bit of the slides because we can't resolve it here. Let a sub

working group say of this working group look into it. That will be my suggestion to really take the next step. We have a reasonable overview of what's happening and now we can really delve in deep and say determine what are the cost factors.

Luis Diego Espinoza: Yes, I want to -- I know we cannot solve everything here, but what I want is for everybody to keep on the same channel with this information. And there is another thing that could affect the cost part. It's the quantity of TLDs are contacts that we manage. Then ok, let's go with the next topic.

This is the repository access, what I call clients. It would be the users of the contact repository. And these users we've identified in C-CERTS, that's any organization who has an emergency response team. And in some moments, we need some information from the repository. That is the customers or the clients of this identified in the graphic on the right side in color pink.

What I think is how is the access to this repository from these clients? And initially I suggest an LDAP protocol or maybe web interface, XML, email, or even (inaudible). Some of these systems, if you cannot get to the contact repository in an electronic way should we do it in another way, like phone call, fax, or I don't know, another access. But all these things could increase the cost of the system. Then we can put it on the electronic way or maybe if we want a very (inaudible), we can keep it the other way.

Kim Davies: Is there an established method within CERTs already, a common way to do it a particular way? Within the CERT community, do they already have established mechanisms for sharing this kind of data amongst themselves that we could leverage or mirror their approach?

Luis Diego Espinoza: I don't know. I do not have some information how they obtain this information. I suppose it's only electronic way, but during my private presentation, I realized maybe another way could be helpful. That's -- we can talk about this during -- later during the development of this. There are some other things about this because this information in the contact repository is sensitive information for sure. If some initial contact or some kind of contact must provide emergency information, that should be personal, cell phone, or number in the home or some way to contact him in case of emergency. And that information is not the useful information that you can publish in any web page. Then some of this information may not be public, we'll keep it under some discretion or we keep it secure and access only by user case basis.

Then maybe we need some strict information policy to treat that information and to warranty to the contact that that information we'll keep safe and we keep it protected. In that way, maybe we need to think about to create an information security policy to manage this information. Some comment about this?

Antoinette Jonson: Well I would just make a simple suggestion and only have that information available to individuals to who have a need to know, period. And you establish what the criteria -- who has a need to know. Of course everyone doesn't, but who has a need to know that information, period. And just keep it that simple.

Luis Diego Espinoza: Yes, that is one of the criteria. Yes. A need to know basis, yes. But the security policy is a kind of agreement between the contact repository and the TLD that provides that information. And it's a two-way agreement, because if I give you my information, you must provide me a policy to tell me how you protect this information and how will manage this information. It's a good idea to have that, how we will manage the information. Security -- information security policy, there's many. We don't need to reinvent the wheel, there are many.

Kim Davies: Sorry, I have to go. Thanks very much for inviting me and I'm very happy to talk to you in the future about what we do and how we can help.

Luis Diego Espinoza: Okay.

Kim Davies: Thank you.

Luis Diego Espinoza: Maybe I can share you some information about this. We can ask you a specific thing about this.

Kim Davis: Absolutely. Thank you.

Luis Diego Espinoza: Okay, we can keep going. About the cost of this contact repository, like I mentioned it has two parts. One in the system by itself and one the service to maintain keeps up to date this information. And the second part is more expensive than the first one and it's not only one spend. You have a recurring spend, recurring cost and you must pay each month or each year to keep the system. That is the expensive part. The unique reference we have right now is from (inaudible) that's something like 1,330 Euros a year for each entity that provides contacts. Then in this model, maybe Bart can correct me, but in this model if I feel the -- want to be part of this contact repository, I want to share information on this contact repository, I must pay.

I think this model could not be very wide adopted by all TLDs. Like we know, there is some very advanced TLDs that knows the importance of this emergency contact information and have a great budget to cover these kinds of costs. But there is many, many, many small TLDs that -- the good thing, they don't consider this a priority in the spend maybe. Pay to appear in the directory and they pay a lot of money to be in the directory, maybe not in the directory for some of these TLDs or they have a different priority for spending money.

And the other thing is, typically this reference price is a little high. This is more than 100 Euros a month for each contact, so it's a little high. But maybe we can review the funding model where maybe we -- this first reference (inaudible) decides on this contact must pay to appear in the directory. But we can turn around that and perhaps another way is to fund it is some entity to pay for it, to keep all information updated. That's one other thing we need to provide, we need to decide, we need to establish in some document to -- yes, Antoinette?

Antoinette Jonson: With a large TLD, would they have a larger number of individuals in the contact repository as compared to a smaller one? I would imagine that would be. Or would it be the same number? Because I was thinking along the context of perhaps a sliding scale. It's just a thought I'm throwing out.

Bart Boswinkel:	It could also be a roll, a subscriber roll. And based on that roll that is in the repository, you call a firm -- and this is the way incident response works sometimes. Say there is the requirement of 24/7 availability, say at the end of the users as well or the subscribers and that you have a phone or whatsoever to make it work. And that could be a roll that you have a group of people that is easier for say the larger TLDs who have 50 or more employees. And if you have a very small TLD, you as a manager might end up with a phone and you have to be approachable 24/7 yourself.

But that's the way you could resolve it or that's -- maybe again a suggestion is say if you go back to the initial say discussions, there is a variety of models for funding. So you don't need to know the exact cost, but say again, a sub group of one or two people could look into it and come up and analyze how these different models work. Because you can do that almost independently of the cost side. If you have different contribution models, with an external one everyone pays say as a use base, or every single TLD has to pay itself. There could be a kind of solidarity fund among the TLDs. Maybe these is external financing, maybe external financing by ICANN. So you've got already four models, and let a small group look into it and come up with some suggestions and analyze what the impact is. |
| Luis Diego Espinoza: | Sure, I agree with that. It's a good idea to have sub groups working to provide this team all the scenarios, all these funding scenarios. We almost have four and the combination of all of them, it's providing a new scenario again. |
| Bart Boswinkel: | So you've got funding models and what is the impact of each of these funding models on ccTLDs? And what steps need to be taken in order to make that work? That would suggest writing up and analyzing -- it doesn't need to take in-depth financial accounting, but at least you've got different models to discuss with the team in Costa Rica. |
| Luis Diego Espinoza: | Yes, sure, that could be one of the class homework. Then from the point of view of system cost, the system has been what I mentioned before, is something LDAP, and that is not too expensive to set up and that is not too expensive to maintain because it's typical infrastructure, it's similar to maintain a web server with the web, it's very similar to that pages. But the maintenance costs to keep up with the information of contacts implies a person calling, a person trying each one of the contacts. This cannot be automated. Maybe yes, but it's not easily automated. Because that contact should be verified. And if the first contact fails, you need to try another one and try another one and try another one. By example, I hear from Czech Republic way that they manage their customer, their [race fans]. They call them. It's important if the phone doesn't work, they go to the web page and look for more contact information about this race fan and they try to find in some way. But this task only can be done by person, so this cannot be automated, completely automated.

Then this becomes really expensive. And this is really important to keep the key of this contact repository that if the accuracy of the information to be a real emergency contact repository. And this service is typically provided by contact center or a call center service. It is not to be a very specialized people calling |

because you can provide some rules to do these calls and maybe you have a call center sub contract to do the job. And in different language. Because here's another special thing about these contact repository. You have many languages to cover and different time zones and all these things improve the complexity to keep up with this information.

Okay, this is about costs. Some questions about the cost? Except we need to define some of these models and divide some. Do you have some questions?

Hitoshi Saito: No.

Luis Diego Espinoza: Okay, this is the proposal of what we can consult to IANA. And we can ask to IANA what could be the possible role in this contact repository. And I provide three items but could be more. And maybe these tasks could be done by some subgroup, too. The possibilities I saw which for IANA that could be, adopt this system, in this way can govern the system. And this is my perception of this. I think in some way each emergency contact or each entity that we need to provide emergency contact information is the same TLD that IANA must have information of the owner and contact for the domain. Then there is a relation of one to one of the TLDs and the entity, we must include in this emergency contact repository. And if you need to obtain information about emergency contact repository, you can update the normal contact information, too, in the same process.

Then in this way, this contact repository could provide a very accurate contact information for IANA right now. And not in the way that it's working right now. There could be some difference. In this way, IANA can take advantage of these contact repositories. And it's not too complex to have information of one TLD and have separate information from the normal contact and emergency contact in the same scheme, in the same [skimmer] under something like LDAP.

Then I found there is a very good relation between the emergency contact repository and the contacts that manage IANA right now. The other thing is, maybe this could be very (inaudible) in the ICANN objectives to keep the stability of the system. If we build a contact emergency repository with very accurate information and a broad information about the model for TLDs, that will help in the stability. Because in any emergency, it isn't easy to contact any of the TLDs. And this is part of the ICANN as you know, it's part of -- it's not something that's changed, it's part of its own statement, its own proposal. That's my point basically. It's a good thing, I think, to evaluate what could be IANA's role in this contact repository, explaining things that way maybe and have some input from Kim Davies and see what he thinks about it.

But because if this doesn't work, we need to find some organization, entity, that can hold this and maybe we need to create a new one. But it's not common sense. I think this could be common sense. But I let you -- you have my opinion about this.

Antoinette Jonson: I think it's an excellent idea, Luis. Specifically, you know, addressing it from the perspective that IANA is the authority, that operational body, that has responsibility for implementation. So it could be a very good fit as far as -- a very

good fit. We have to approach them and see what their take on it is, but it's an excellent idea I think.

Isak Jacobsen: I agree. I think we approach IANA and ICANN and all of us would benefit from this model. I think it's a great idea.

Zoran Vlah: We had a small discussion just prior to this meeting and my opinion is that IANA has the core set of the information that should be, we should add more information to that. They have just the core subset, they don't have emergency contact. And of course that we should use whatever means to use the information that exists. And I think it's very feasible to do that with them.

Luis Diego Espinoza: But we cannot decide ourselves and we need to ask IANA or ask Kim Davies what they think about that. And probably the -- if this go further, if this imply an additional cost for IANA and that would be, that should be analyzed with care. But mainly that could be not too much different between how IANA is working right now. Because maybe add some resources, not too much, but add some resources. Maybe the actual contact information that IANA has in their database could be added. This contact information -- obviously create all the security and so on. Okay.

Bart Boswinkel: Again, maybe this is something you or another member of the working group might want to pursue, say the role of IANA as one of the alternatives. And then you have -- say that's probably a model and then you have something like the governance structure as well. And you hit upon say the funding discussion decision the (inaudible) currently has with ICANN as a whole. And this would fit neatly into it But just develop it as one of the possible models. So --

Luis Diego Espinoza: Yes, sure. But I think we can, in first instance, (inaudible) try this and if it doesn't work then we can go ahead with other models to call this.

Bart Boswinkel: I suggest that you run this -- so you try to develop the different models in parallel because then you will show alternatives and then you offer some choices and there you oversee the consequences of the different models. Because there are different consequences. So both at a governance and political level as what we got through funding, as what we got through other stuff. And costs.

Luis Diego Espinoza: Okay, it's a good idea to have other models, too, in the same way we need to think about different models of funding. This is -- maybe this is a very common sense, but sure, we need to evaluate other models too. Then this is one model. The other model is to have, to create a new instance. The thing is, we need to work a little bit -- and that could be a task for another subgroup to do, to think about other models to help handle this information.

The other thing I wanted to talk to you is about the region organizations. And I want to talk about how I think that they should be consulting about what we are doing with this. Because at some point maybe they have some interest in providing information or use information in some way and maybe they could be an additional contact that could help in case of emergency. And by sampling by region, like TLD, do a great job keep us in contact, what is happening in the region and the political issues and things like that. Because there are some,

there is an issue here about language. The original organization (inaudible) we communicate in Spanish. And it's true, there's some technical people by example that can talk English, but in some cases, they only speak the local language. Then it's easy to communicate in sole language. And in the case of (inaudible), Asia Pacific, especially for Asia, it's a little complex there because -- I have been in two countries and I saw the English is not a very common language to speak. And we can expect that could be easier or better if somebody tried to contact them in their own language than only in English. But it's only a few elements that maybe we need to ask the user organization to provide some information what we are doing and let them tell us what they think about this.

And we need to -- maybe we need to ask about if they have some reason to need access to these contact repositories Obviously technical need to work. But and not only the emergency response teams. Then another element here could be in the first stage we need to obtain as much information as possible from contacts. In this first stage, maybe the (inaudible) organization, they already have good information about contacts in each TLD that can help to obtain the emergency contact information. Or maybe that information contact has that information.

Then they could be a good source of information. Obviously it's a good idea to validate and verify. But that's more or less the proposal about (inaudible) organization. Ask them first, tell them what we are doing in this working group, and ask them what they think about this and what they think which could be the role of them in this or the interest of them in this working, in this contact repository.

I was talking a little bit with Jack [Lapleax] from (inaudible) and they found in North America a very difficult way to establish a network of emergency contacts. They show me how there's many limitation with different source of contact information and different emergency systems trying to access that information. And he told me they are proposing to try to link in some way all these sources of information and provide some kind of link between these. And they are thinking something like a DMS, some distributed database of contacts with a root and exchanging information from some place the root can -- if the root don't have this information, you can ask who has this information and create a system like a DMS.

And here, it's funny, because here in the way that LDAP works, it is very easy to build a system in this way. We do a distributed contact repository information but related in some way. This relation is mainly like a reference in the protocol. Then maybe we can think about this will not be the only and mainly contact repository database, but can be the piece of system that can link the orders. By example, in Europe, (inaudible) they already have some kind of emergency information. Maybe we don't need to duplicate that information. Maybe we only need to delegate that access to (inaudible) by example.

And if (inaudible) similar contact repository like in Canada, they already have a contact repository for emergencies. Then you only need to make a reference to that information because they already have it. (Inaudible). And in this I think maybe the (inaudible) organizations could help. Or could not, I don't know. But

my proposal here is to ask them what they think about. Because in the conversation today with Jack, I will ask more details about what they are doing. Because in some point maybe we can relate the work that they are doing right now with this information and make some proposals because that could be a new scenario. And maybe the solution could include that reality, that there's many contact repository information around -- emergency contact information around the world.

Okay. I was thinking only about (inaudible) and organizations, but we have another task I didn't write about, Bart mentioned, about found different funding models, where we have some input in this meeting. And I don't know -- (inaudible) about what other things we must --

Bart Boswinkel: May I make a suggestion? If you look at this, the slides and what we've discussed today and previous discussion, we have a reasonable overview of what is required to run a contact repository. So what you can do is produce a template with these headlines. Then you have the different models, how this will affect.   One is, build your own organization, build the system from scratch. Say organizations to maintain it. That could be through the ROs, but it could also be on the ccTLDs, (inaudible). Then you could say to the market something like, gee,   I introduce -- say there is a description what they do, you can go to the website and look at the different aspects of such of say all the headlines we have. Then you have a basic idea of the costing as well. And you have a basic idea how the governance of such a structure is.

And a third option is, what you said, is for instance ask IANA how it would look like. Then they have the same questions. And I think -- so there you have a reasonable overview say in template format what needs to be addressed, not at this stage at a very detailed level, but at least you should be able to compare the different modes of creating a contact repository.

And say the last element of this is that this working group needs to look into funding itself. But that can be done -- that's a completely separate exercise. Now what I would suggest based on this, and I've been doing this a little bit during the call, is that Diego and I try to come up with a template which includes the headlines, just the headlines. And you end up with something like estimated costs as well, but something like governance. You have to think about it, you have to think about maintenance, etc., what is -- you have to do some analysis and fact finding.

So based on these templates that we form small groups from preferably two persons who are more or less in the same time zone and that they come up, say after a month or one and a half months, with some ideas, just listed and done some fact finding and analysis, and then compare them. It's a bit like the finance working group has been doing. So they have different models for financial contributions and they've done this, they've identified different modes or models and they've analyzed them according to a template. Because then you make them comparable. And you can do that in smaller groups, you can do that very rapidly.

Then you take it to the next step. So my idea would be, or my suggestion would be that Diego and I would go back and try to develop a template and send it to the working group and say, do you agree with the template? And if you do, then we form smaller groups, preferably in the same time zone, and that they start to fill in this template. Because then it makes is comparable. And it shouldn't be at a very detailed level, but then you have something substantial. And the we can -- then we say before the Costa Rica meeting is that we start comparing and refine them and that we consolidate this into something presentable and say, this is what we've been looking, say one of the models. That would be my suggestion to move forward.

Luis Diego Espinoza: Yes, sure, I agree with that. I don't know if -- yes?

Bart Boswinkel: Do you agree, disagree?

Unidentified Participant: I agree.

Antoinette Jonson: I agree as well. Because I'd like to kind of get working on my task and be ready for the meeting.

Luis Diego Espinoza: Okay. Do you agree with what he mentioned, Bart mentioned?

Hitoshi Saito: Pardon?

Luis Diego Espinoza: Do you agree that we can do these templates and turn them to you to fill out in groups?

Hitoshi Saito: Okay.

Luis Diego Espinoza: Another -- this template is basically for try to put the different models on something comparable, yes right? But I have another -- because this consultation to (inaudible) organizations is more like kind of should be -- maybe we can design a little survey of questions to IANA organizations. By sample, in Latin America there is an organization that they are working together with the C-CERTs in the region. The name of them is [En Parro]. I saw today from Jack there is something in Canada. maybe we can find a template of questions and send it to the [Spanish] agent to have some input of this organization about this information.

Bart Boswinkel: Yes, and I think -- and I agree, but it's a more a sequence as well. You have to be very, at this stage, we have to be very careful that we do not dwell into say sub questions on these working groups. So you prioritize what needs to be done first to move the project further and forward and then say at the next phase, some of these models, it will become clear, say this is not feasible, or at very, very high cost. Then you take it to the next stage and maybe refine some of the models, etc., based on the initial comparisons and then initial analysis. That would be my suggestion.

And at the same time -- otherwise we get lost in all these sidetracks and that makes it very difficult to keep track of what -- so start with the high level stuff first, and then based on the high level stuff, think about, okay, what do we as a group

really want to delve into and what needs to be refined? And at the same time, others can do other stuff.

Luis Diego Espinoza: Okay.

Bart Boswinkel: Just to summarize, what Diego and I will do, based on today's discussion and based on say all what we have already as material, we will try to -- I don't know -- when will you be travelling? When are you going back to Costa Rica? Friday. So by the end of the week we should have been able to, either by email or other way, to have -- because it doesn't need to be very complicated examples. Then we send it round and we don't need a conference call to do it. We can do it online. It's okay, who is going to do what and who is -- yeah, who wants to touch upon a particular model. And then we appoint -- because that's what I've learned over the years with different workings groups. Say smaller groups, even if you are two, you have one point of contact for the whole group, who will drive it, who will be responsible.

And in order to move it forward, then let's say somewhere in December, preferably by mid-December, that we have collated all the information. Diego and I will -- we combine it and then we have a call and then we have an overview, okay, what needs to be refined? And there you have a nice way of moving forward and preparing stuff for the Costa Rica meeting.

Luis Diego Espinoza: Yes, sure, I agree.

Bart Boswinkel: Then we have action items, everything. So thank you very much. Diego, you want to close the meeting? Because I've finished.

Luis Diego Espinoza: Okay. This is all. Thank you so much and we will keep in touch.