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DYNAMIC COALITION INTERNET OF THINGS

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>> WOLFGANG KLEINWACHTER: If somebody is interested in the subject of Internet of Things, this will be the Dynamic Coalition Internet of Things. It is a Dynamic Coalition in the making and if you want to become part of this please stay here for the next 90 minutes. Thank you.

Ladies and gentlemen, please take your seat. I welcome you to this meeting of the Dynamic Coalition on the Internet of Things. If you go to the IGF Web site and click to Dynamic Coalitions you will not see a link to the Dynamic Coalition of the Internet of Things because the Dynamic Coalition of the Internet of things is not yet registered and established. It was established two years ago in the IGF in Hyderabad. It was a group of around 10, 15 people. Some Governmental representatives, some technical experts and some other business people including EPC global and some others and the Chair was Francis Muguet. Unfortunately before he finished to do the bureaucratic things, the registration of the Dynamic Coalition he passed away.

And so there was no formal leadership. And the coalition was more or less sleeping. And when we moved now towards this meeting here in Vilnius some people and colleagues said probably it would be a good idea to revitalize this sleeping Dynamic Coalition on the Internet of Things. And so we brought together some people who has been involved also in some other activities which took place in the last couple of years, in particular the Euro and F group which is works under the seventh framework of the European Commission and where we have a special work package which is dealing with the Internet of things and in particular with the governance and privacy implications of the Internet of things. We had a meeting in the year 2009 in Leipsic and I see that Sophie Le Pallec and Bob Kahn and others were involved and based on this research project under the framework of the seventh programme we are now in the process where we are writing a report which will cover in particular the governance and privacy implications and Markus Fiedler from the Institute of Technology will give you an overview of this project and the interim report we have produced, also not yet on the Web or it was just delivered the last couple of days.

And so this is more or less the background, why we are here. And I am very happy and although very pleased that we have some good speakers for the introduction just to deliver some basis for our discussion. And the main aim of this meeting here is that at the end of the meeting we formally reestablish the Dynamic Coalition of the Internet of Things and discuss probably the work plan, what we should do from here until the next IGF which will take place as we meanwhile know in the end of September in Nairobi in Kenya. This will be the first date in between, between Vilnius and Nairobi we will do something and it can be discussed later.

For the moment I want to introduce the speakers here for this session. To my right is Maria. She is a member of the European Parliament and it has just recently published a report. By the way the European Commission is very active here. The Commissioner Kroes which gave the opening session speech is planning to establish an expert group which will be established in October. He is a member of our group but unfortunately he had to leave this morning. He was here until yesterday evening but he will be part of this our Dynamic Coalition and

the committee under Madam Kroes we have a nice linkage to the political process.

Next to Maria is Bob Kahn and everyone knows him as the father of the ICT protocol and he is always thinking out of the box beyond what we have today. So we are very happy that he, you know, gives us some time and will say, you know, some of the his observations and reflections about latest developments. Unfortunately he has to leave at 9:30 because there is a press conference and he is one of the speakers in the press conference. And then we have Markus Blakinham and Markus Fiedler a professor at the technology institute in Sweden and he is a member of the steering committee and co chair of the O&F research project. That's the programme for the moment and because Bob has to leave I ask Bob to start.

>> BOB KAHN: Thank you, Wolfgang. This press conference is with the ambassador. Assuming it ends in a timely way I will come back. I don't have any control over the timing of it.

So we debated whether I would use slides here or not. I guess Wolfgang and I agreed that I would just talk in words. Part of the concern that I have about the Internet of things is that many people somehow believe it is different in some fundamental way from the Internet itself and I really don't think that's the case. So I want to make that argument and try and explain why the Internet of things is really just another way of making use of Internet in order to manage a slightly different set of applications than we historically thought about. One of the most important aspects of the Internet going forward is to ensure that it has got a good way to evolve. Evolve to deal with Internet of things, to deal with any area that we can imagine coming up in the future. It is very easy to get in to a state of mind where you are only thinking about what exists today or what came before. Much of what we are going and need to do is going to involve embracing new ideas, new concepts, new technologies and figuring out how to factor them in to our ongoing developments going forward.

In fact, I had a chance to talk with Ms. Kroes about that over the last few days. Let me give to you a few examples just to put things in context. One of the most important areas that we are going to have to deal with in the future in addition to evolving the net which to me involves getting good competitive alternatives out on the table so people have choices is worrying about security. In order to do a good job of worrying about security we are going to need the capability of knowing about people. If you are trying to access medical records, for example, and they are private to you the system is going to have to know that it is making the request and therefore you can get the material.

In that sense a person, although I don't mean to slight any individual in this room or anywhere else, is a thing in the context of an Internet of things. It is not a computational facility in any sense. But how does a person get representation on the net. Well, there has got to be information about that person on the net that can be tied to that individual. So one way to do the tying is with a public key infrastructure. That's the best way that we have at the moment but it is not it is only the last step. It is not really the first step. If we have a good system that will enable an individual who can identify themselves, say I am the individual and here is my identifier in network form. So it is not a personally identified identifier. You can't tell who the individual is from it but that person has a private key, then that person can use the private key to validate themselves to other people who can access their public key. And I will explain how that can work and some of the technologies coming forward in the future.

Having said that there is a major concern about how you validate trust in the system. So it is one thing for me to, you know, put the information about Wolfgang Kleinwachter in the system and assert that it is Wolfgang but people need to know that it is me and they can trust me to do that. And I don't know most people in the world. And most people don't know who to trust for these things anyway. So there is an initial step in identity management that's really critical which is who is going to do the validation of these individuals to know that the person who has a certain private key is really the individual that you think they are. It could be Governmental bodies that do it. Then you just have to trust the Governmental bodies. It could be private sector groups but that's a preliminary stage. So once the person has been vetted, so we know who it is. Then a public key infrastructure can manage that person's identity within the system.

So in that sense this person is just another thing managed the same way as you would manage any other thing in the system. Let me give you another example having to do with books in our RFID devices. So in the field of RFID devices for historical reasons the resolution of the RFID information was done through a system

developed at MIT years ago called ONS. It has some strengths in the sense that the DNS was out there and available and that's what the Web choice was as well. But the DNS is simply an application on the Internet that maps domain names in to IP addresses. That's in fact, the reason I made that selection back in the mid 1980s so people didn't have to remember IP addresses. It is a very limited kind of system and capability and there are other capabilities out there. And I will give you one example in a few minutes that has got much more power and would be much more widely applicable for other areas that the DNS is not now currently suited for.

So to be very specific in the case of the book publishers, people who are dealing with scientific information they had a very specific concern about the management of that information. Now they already start from, you know, if you think about a book of paper and ink version of the data structure a digital object in the network is the digital representation of that and they decide to go along with a system that we had conceived many years ago and has been on the net for 17 years in a widespread operation, that allows to identify a data structure on the net independent of the technology that allows you to house it. Have that reference come off the electronic or digital book shelf in a hundred years or a thousand years and still be workable. It can't be tied to the technology of today.

My thought is let's break away from the notion of files and folders and wires and individual machines and literally identify the data structures we are talking about. In the case of the publishing industry that's what they have done. And so if you look at virtual, every scientific and medical journal that's published in the world today you will find there are clickable references in the back that use identifiers for the data structures themselves. We call them handles. The published branded them as called DOIs and they have been doing this now for more than a decade really reliably and they have an organizational structure that literally parallels ICANN. ICANN has functioned pretty well for the job that it is set out to do. But here is a parallel structure to ICANN that's being used in the publishing industry and I think it is going to broaden out to include others in the entertainment industry fairly soon. They have a parallel structure to ICANN and one of their registry agencies actually happens to be the publication office of the European Commission, but there is a number around the world including the group in China that manages publications that come out of China. So that's a very interesting kind of structure that they have got and I think it is worth looking at. Well, they built one of the biggest metadata industries and it has got information about all of the published material in digital form.

Now if a book comes out with an RFID tag and you view that as a thing in the context of an Internet of things, it really liked to be able to take the information in that RFID tag and have it map directly in to the information that's in their existing metadata registry which is huge and is kind of the Ft. Knox of that registry.

So it is a very inefficient way of dealing with things only because it is a legacy system. Could take a lot more time and talk about the digital architecture. Let me highlight the key components of it and hopefully if I am back from the press conference in time we can pick it up later. One part of the digital object architecture is the resolution architecture which allows you to take the identifiers and map it in to the transactional state information. For example, if it is a book and it is available in the network environment it is prepositions around the globe and you would like to know where those positions are. You will get that out of the resolution systems called the handle system. This is in widespread use. They manage their own information and there is a kind of a root system that is very much like what you see in the DNS, except unlike the DNS it doesn't have to have central management by one party. That is, we are going down a path of exploring of how you can actually have multiple parties. Maybe they are done by region; maybe they are done by country or maybe done in some other fashion but no need to have a centralized party to manage this. It gives a lot of organisations and countries confidence that there is a system that they can be in charge of but yet works well with everyone else's system going.

This is a capability that has great potential in many other areas. If it is a book, for example, that you are trying to access, the system could say, you know, it is not available for free. There is a price. It could say what the terms and conditions are for use. It could give you authentication information so that you can validate that what you got was what was originally intended. It is very powerful in those dimensions and it doesn't dictate what goes in. So the user can create their own basis of what they want to tell somebody about that particular information. A second component of the system is the notion of repository which is really digital object management software, but the interesting thing is that it works with existing storage technologies and allows you to access this information by virtue of the identifier only. So if you came back in a hundred years or a thousand years you

could actually access this data structure by saying here is its identifier. Go find it for me and give it back to me and you don't have to worry about what the URL was a hundred years ago; what machine it was on; what file it was in. So I think that's an important step forward.

And the third component is something which we call the digital object registry and this is an area I have been actually working with Study Group 17 on identity management ITU on discovery. That software will enable you to specify how to search for things and it could be therefore be done in different languages and the user can tell the system how to look for it and therefore, you can search on it and it always gives you back answers in a very standard form. And these registries can be federated. They can be federated peer to peer or hierarchically. So you can do searches over sets of collections that may be beyond the ones that you have yourself.

Furthermore, it has got security built in to it both in the repository sense and in the registry sense. In fact, the registry that used the repositories to store their metadata records. It is a security system that you can deal with private information as well as information that's available in the public context. So I know we have limited time. And Wolfgang I would be delighted to have more discussion with people about this and how it fits in to the larger Internet of things concept but maybe I think it is best that I stop there and turn the mic back to you.

>> WOLFGANG KLEINWACHTER: Thank you very much. The second part we will have a debate. I think it is a good basis for the debate. So thank you and hope you will be back after the press conference.

>> BOB KAHN: I might say my wife Patrice is sitting in the corner. She often comment things for me with authority.

>> WOLFGANG KLEINWACHTER: In case we have questions for you and you are not here then Patricia is here to reply. Maria from the European Parliament will have a report for you.

>> MARIA: Good morning, everybody. I am going to try to present our report from the European Parliament and why this report and what are the aims and objectives of this report. As everyone knows the Internet in the last 25 years has been spread a lot very quick. And many applications, new applications of the Internet are appearing. Among many others the Internet of things was launched in the United States in 1996 and since then it has become even more popular and we presume that in the next 10, 15 years that is it going to revolutionize person to thing and thing to thing interactions thanks to the growing use of RFID, the radiofrequency identification. In front of this situation there was a decision in my opinion, a good decision of the European Commission last year to address this issue in a communication and that meant the kickoff of the discussion at a European level.

This the Internet of things opens a full range of new opportunities and challenges but however we have to be aware that we have already plenty applications that already act with this Internet of things. It is nothing new that is going to appear now. In fact, we are using this technology now. We are using this technology in the automotive sector. We are using this in to know the physical characteristics of the, for example, the foot and many other applications have been developed. And we wait that many other new are going to be developed. Considering this situation one of my concerns of being Rapporteur was establishing a framework that will not only consider the current developments in the field. Bob has mentioned it. But also cover the future ones. This is going to appear very quickly and the changes are going to be a lot and we need to think, to legislate in something that is changing permanently. However, this flexibility of decisions future development should not be understood as lack of legislation. Then we consider and we put greater emphasis in certain issues that affect in particular to people.

For example, the impact or the possible impact of radiowaves on health. The electromagnetic impact on the ships. The recycling. Consumer privacy. The user of small chips in small environments. What it is for public with regards to personal data and the Internet of things in the city and nature. In respects they have something in common. All these respects need the trust of the people. We are we are sure that if the Internet of things is going to be a success is needed that all the consumers, all the citizens feel that there is something that they can trust.

And this is why the protection of personal data and privacy is one of the important issues on this new technologies. And this is why the commission, the European Commission is intending to launch a new communication probably in one month or two months in this on privacy and trust in the information society. We are waiting this communication because it is going to be very useful to apply in this new technologies. Moreover the Internet of things offers a major economic opportunity as it will enable the optimization of relative processes and energy consumption, generate new jobs and create new services for an ever increasing number of Europeans and European companies. Also using the Internet of things in connection with NACHA can help in the very many of green technologies and increase energies and to enhance the relationships between ICTs and nature. Both aspects should be linked and become genuine opportunities of growth of the European union. These are some of the important issues that we have taken in this report. And one decision was because all these changes we presume they are going to take place, each year we are going to do an evaluation of the situation to see that the legislation, the actual legislation in European union is enough or not to protect citizens of all these possible risks with a use of Internet of things. This is in general the context and the text of this report. And now I will be very pleased to listen to your opinions because as you see probably in two months or three months we are going to work again on this issue and they will be very useful for me. Thank you very much.

>> WOLFGANG KLEINWACHTER: Thank you very much and my understanding that the report is certainly available on the Web and we will generate your list so we can distribute your thoughts so that everyone who has an interest can read a report. And are there direct questions to Maria? Then probably she will take one or two questions and otherwise I would give the floor now to professor Markus Fiedler and he is the co Chair of the Euro and F network of the future research project and was pulled also in to the Internet of things issues only in the last two years. And Markus, the floor is yours now.

>> MARKUS FIEDLER: Thank you very much. Nice introduction and it is true that I got pulled in to mainly by you actually but you got pulled in to our network of excellence at some point because we realised that we are working, I mean Euro and F is the name. It is 35 partners from 16 countries and mainly working with architectural and performance issues of the networks of the future. Not necessarily only Internet. Can be any kind of network.

But we realised I have been working with the socioeconomic aspects of this of the Internet of the future for many years and also our project leaders Daniel Koffman from France he realized that there is a need of looking at governance and Internet of things issues and that's the reason why we got Wolfgang involved. And then we have, of course, started thinking about these items and but perhaps before we I would like to go a bit more in to details here to tell you something more about this network because it is a different community and I mean for the first time at this kind of event and really enjoy it actually.

Euro and F has a central role in integrating European research and disseminating outcomes on an international level but also for internally, for instance, for in the form of Ph.D. courses, summer schools. We had one joint summer school here with Wolfgang's activities in last year in Misen. Also a couple of Ph.D. students from our network of excellence participated and got their eyes open for governance issues. There are conferences and workshops but we have also a set of joint research activities. As I said before it is around architectural issues and performance issues and the question how well do certain architectures of the network of the future, how well are do they behave. What can we expect from them and how do we have to make the design choices in order to get well performing systems.

And then, of course, the socioeconomic aspects as well. And in this joint research activities that are carried out in the form of work package, a couple of partners participate. We have some years back we have come up with joint specific research projects. These are projects that have quite limited funding. It is for one year, 10,000 Euro per partner but they are thought to be think tanks and strategically oriented activities in order to come up with new ideas, new approaches to a set of known or perhaps not even known problems. And one of these projects is Government and privacy issues on the Internet of things. This is headed by Wolfgang and involves four partners from the network of excellence. And when we started discussing about this issues we realised that it is perhaps not really straightforward Internet of things and networks (Off microphone) and perhaps even

furthermore, where is the link actually between the Internet and the Internet of things. Because I mean some people they think, of course, Internet of things that means my fringe should have an IP address. Somehow everything should be networked with the pros and cons this includes.

On the other hand, we can also see Ireland's have a gateway out to the outer world. So we have actually worked been working on a position paper that is about to be released. We also try to highlight these co existence between these different notions, Internet, Internet of things and networks of the future. And we see that the joint part is actually they are similar design principles. But it is still might be in polymorphic environment. You can also see today in networks as such there are many networks appearing on top of Internet infrastructure. For instance, peer to peer networks, content delivery networks, whatever you can imagine. So there is a networking actually going on on very many different levels.

So from that point of view we are facing a new situation where we have applications on service providers determining what's happening in networks. They have also their own policies, of course. ISP have to start with the traffic and have to find the business models beyond (inaudible) but on the other hand, we also believe that the Internet is such a universal transport as a means of transportation for data of any kind, will be around many many years to come. Even though we see right a lot of projects that have the so called clean slate approach. Trying to redefine things completely but then even there is a revolution going on but often it ends up in evolution that you somehow to implement the things and then the aspects or the findings and then you are back to Internet technology.

So from our point of view governance and security issues seem to be more important than they ever have been before. Just also looking at the Government trends and contents and networking and thinking about Bob Kahn's speech before he mentioned this corresponding security issues and the registry. So whether it is DNS or ONS or some naming system on top of that to come I think the issues to handle the sources remain. I would like to make a case for having these discussions ongoing and seeing how one can really integrate all these different players in the market from the application from the end user to the application provider to the service provider to the Internet provider.

And whatever provider that might appear in the future. Thank you.

>> WOLFGANG KLEINWACHTER: Thank you, Markus. I think this is a good example of what multistakeholder in practice means. Because what I observed and what I saw in the last couple of years is there are a big group of technical experts here doing things totally disconnected from debates in the field of governance and there are business people there which are doing all the applications and developing further the applications. And all disconnected very often from the other groups. But the Internet of things whatever it is, you know, is a very complex issue which needs involvement of all the various parties. And sometimes if I read the reports from policy people in the commission or in the parliament, then I realise okay, it cannot be settled alone anymore by the politics. Say have to have the linkage to the technical experts, to the business people. You have very close relationship because nobody has all the knowledge and nobody can handle the system alone. And we have to find a way to bring this together to understand what's going on and then to make use of it which produces, you know, new services for people which respects the rights and freedoms of the people and which generates all the wealth of future, economic growth so that business can further evolve. And although you know that we will stimulate an environment for new technical innovations and I think this mixture is the beauty of these recent developments and insofar, you know, it was also for me a very exciting two years when I was surrounded only by engineers and I had a lot of things to learn and understand what their language is and probably they have to learn what the language, the governance and policy people is. But at the end of the day it works in both directions and I think this is also a little bit durational behind our planned Dynamic Coalition on the Internet of things, to create a platform where people with totally different backgrounds sitting in different silos can come together and have a place for exchange of ideas and information and knowledge. With this and we come more or less to the end of the first part of the presentation but Patricia wanted to say something and then Maria wanted to react.

>> PATRICIA: Good morning. I will make a very brief statement. I know that you heard from Bob Kahn earlier. There is another group. And it has to do with the legal community that is moving forward on various

fronts and in particular in the context of the Internet of things which I view as part of the broader Internet and in fact, sometimes there is a view and I think somebody mentioned that there is Internet technology and then there is the RFID technology. Well, I have been involved in some projects involving shipping and transportation industry and here you get in to UNCITRAL which is another UN organisation and some of that context in that particular exercise has not come up here yet.

Now the reason I am mentioning it is here you can have the information flows, say, for example, the information that's mapped in to a tag, an RFID tag on a container or boxes within a container and then you have information say about a letter of credit or insurance and you can then have new legal documents and this is what they are trying to they have a wonderful way of saying that the dematerialization of say letters of credit or deeds or other documents that are legal documents. So in this context the information flows have to be organised at very fine levels of granularity. And so in that context the RFID information is a vital part say of the bill of lading. If ownership changes or there is an accident at sea. I would just invite that there be consideration of well, Bob had mentioned the digital object architecture or ways of structuring, identifying and managing information that takes in to account this more wholistic evolution of the Internet technology to encompass the identification of things.

>> WOLFGANG KLEINWACHTER: Thank you. Maria.

>> MARIA: Just to add the information because I was listening very attentively, especially your last comments, and I wanted to explain that when the first time I read the communication on Internet of things that came from the European Commission it was so complex and so technical issue that it is not easy for a member of the parliament who is not a specialist on these issues to talk about it.

And the first thing I did was to visit a university, Polytechnic University in Barcelona to talk to these people. I have this paper on my hands and we have to tell something since the point of view of the European Parliament and the first question was which are the risks and which are the advantages. Always thinking for the citizens because it is our job to prepare these big changes for the citizens to use safety. That was the first thing. And then I visited some other institutions like City Lab also in Catalonia and I absolutely agreed that we have to work together all these stakeholders because members of the parliament we cannot just legislate in these kinds of issues so complex and so scientific. But we should think that we have to be maybe the bridge between all these complex world to the citizens because if for us it is not an easy thing. You can imagine for most of the users when they are going to buy in probably the next month they are going to buy a refrigerator and they are going to ask them do you want shipment on this or that or they don't know what they are talking about. And I think as part of our work as legislators and as representing the citizens to make the things a little bit easier and try to work because the citizens really can trust to all these new technologies that they are going to save lives and to give them a better life.

>> WOLFGANG KLEINWACHTER: Thank you very much. Sophia Le Pallec has been involved in this for many, many years and probably you both want to say some words.

>> SOPHIA LE PALLEC: Thank you, Wolfgang. I think that you mentioned a very important point about the fact that there is it is very difficult to know what the frontier between Internet, Internet of things and Internet of the future and I like also to outline the fact that there isn't probably just one Internet of things. And perhaps we should try to define what is already an Internet of things for each of us because you mention previously that there is a question of IT addresses. It could be one kind of Internet of things when you want to put IP addresses and directly being able to address the objects. But it is probably not the case for everything because right now you can have information and objects without accessing it. And you don't need to put RFID tags on objects to have information on them. If you are able to identify the subjects like it is the case with bar codes today, then you have information on this. But at this stage you are not able to access to manipulate the objects through the networks. So depending on this different label of Internet of things you will not address the same policy issues and I think it will be a first important work, first work to try to define what we think what do we think is the Internet of things and I am sure it is not the same for each of us.

>> WOLFGANG KLEINWACHTER: And I think the microphone is here on the table.

>> LOUIS: Thanks, Wolfgang. My name is Louis. This discussion reminds me of the Internet. Because by construction it will be a different thing for different applications for different people. So I guess what we should start with even though we don't have the answer today is to start by listing down the criteria we think are necessary for our own vision of the Internet of things. For example, should be secure in terms of accessing a piece of information. Secure being, of course, the long list of things to do. Second, it should be independent of the infrastructure of the communication infrastructure and that includes the present Internet in the sense this technology is not going to last for a thousand years. No, it is as if 50 years ago we had thought that the only communication, universal communication system forever would be based on the voice grade circuits. So we have to think of the potential new infrastructure which will live together for a very large number of years because, of course, we don't we are not throwing away the Internet through the window. We will you have to use it and live with it for a number of years. On the other hand, a new communication system will appear and we will have to cohabit with them for a number of years, too. I guess we have to list the proper base, base criteria, the proper basic criteria for the Internet of things from our own point of view. Probably not very many. For example, if you tried today to define what the Internet is in terms of basic concepts, there are not very many. Maybe not more than five.

>> WOLFGANG KLEINWACHTER: Louis, Devina.

>> DEVINA: I suspect the discussion has started. I was wondering it was the initial group. A couple of things and I am going to throw things a little bit at random because I am coming to this coalition after having discussed at the time with Francis Muguet and I would like to bring back what he had in mind so that people remember because maybe we are moving in a different direction, but when Francis was thinking about that and speaking under the authority of Louis Praza, his aim was the creation of an a totally decentralized structure of the Internet. Starting something new and using the fact that the Internet is becoming more and more decentralized to reempower the end user. And I think this is maybe what we should keep in mind and this is the way that politicians might be interested. And as a Catalan I can share what the other Catalans think about independence. That's one thing and I have a semantic problem because of Internet of things because of that. It is really putting things at the centre and not humans and things is a very weird word. Object is a little bit better. So maybe we should rethink our the name of this coalition. Personally and I am working with the Council of Europe on that, we are talking about Internet of subjects to deal with things, which is to say once more putting people back in and from a humanistic perspective and I send you to the Internet of subjects manifesto that has been published in 2008 by Thing, the French Internet of Governance. I can give them to you in case you can't get to it by WiFi and then go and speak to the technicians about it. There is no fatalism about what the technology can do. It should be dependable. It should be independent. It should be trustworthy. It should be opaque. Yes. Opaque. In terms of the people being able to protect their identity and themselves and it should be community aware and it should be humanist. Giving ourselves four or five words that bring us together on what we want to do.

So these are a few things on what can be done on the positive things that maybe we can start sharing at the (inaudible). We are trying to create a positive identity management system where we ask for the creation of personal e portfolios, personal biographies and also where we are trying to create personal safety where people are in control of all the data and they deliver where asked. It is bringing all the data in to your home and using the decentralized infrastructure of the net and not have everything out there available by everybody. But being in control of what you are willing to release in terms of personal information. That's all just to start the conversation. Thank you.

>> WOLFGANG KLEINWACHTER: Thank you. By the way in the workshop we had last year at least on the table discussed not as really a serious concept, do we need ICANN of the Internet of things to manage all the addresses and the answer was certainly no. Please avoid because this reflects to you a question of

decentralization. So there is no need to have this. While subjects have to talk subjects. You can have several hundreds of roots. There is no need to have one single root and yes, the question was the critical point is what you said the meeting point between the subject and the object. If a subject can be identified and defined by the objects around the individual, then you have a very critical point here. Because then there is no need to have information about you as a person, only about your objects around you. And this is probably more critical than if say have the very individual information about and so far this is the privacy implications here are tremendous and we really do not yet understand what is behind all this data and information that we collect with the objects. And what's going on with this object information and data within the objects and. But there was another voice first you and then Patricia wants to make another comment. And you are certainly invited to join the discussion. And I think we will discuss another 30 minutes and use the last half hour to discuss the formalities for the Dynamic Coalition and the work plan for the next year. I have a list of speakers. 1, 2, 3, 4.

>> JAKE JENNINGS: Good morning, my name is Jake Jennings and I am with AT&T. First of all, I want to thank you for inviting me to sit here. Internet of things is a very broad subject to me. My five year old son said to me when I asked him if he knew what the Internet was, he said dad that's where dotCom live. He goes to dotCom to access information or data. From AT&T's perspective we see technology as having its own life cycle. First it enables opportunities and then we see technology as you start moving along that pathway that technology starts limiting opportunities. So then you end up with a virtuous cycle of needing a new technology to continue the improvement. Our analysts at AT&T labs and scientists and they estimate and this is an estimation, that in the future there will be ten to the 12th things connected to the Internet or the Internet of things. So I actually had to go and do the conversion. So a trillion devices, objects on the Internet plus or minus a few billion.

What are these objects going to be doing and I think we heard some good examples of RFID tags. You can see in practice where an RFID tag is talking to another data or machine to where the cargo is actually being monitored for humidity and temperature. Sends a signal to a compressor climate control device that says this medical device or this medicine temperature is starting to get a little too hot. We need to immediately cool it down. Well, that could be over any technology, wireless, fixed line, communicating. Both of them have an IP address. Although you start running out of IP addresses very quickly with that many devices. Fortunately IPv6 will enable us to have more devices on the Internet.

You can see no human intervention is required and all of a sudden we made something more efficient. The person monitoring the environmental controls can be doing something else. The other item that we are seeing at AT&T is something called machine to machine computing. One of the early devices we have seen can you imagine having a device on a person that takes your temperature, your blood pressure, all your vital signs and takes it to your Smartphone and you travel with your Smartphone globally and it hooks up to whether WiFi or mobile or some other technology back to your doctor's office and then you are able to identify you have not been taking your pills and your blood pressure is up and you get an SMS saying you need to get on your schedule. One of the legal issues that we are seeing what is that technology from a cross border trade perspective. Is it an app? What is this thing that now is empowering the individual but yet could actually be limited because a Government's trade barriers and legal requirements have not essentially permitted this type of new technology. So I will raise that as an additional opportunity for the Dynamic Coalition.

>> WOLFGANG KLEINWACHTER: Okay. Patricia.

>> PATRICIA: Thank you for that comment. That was very interesting and in fact, that's something that come up in some of the discussions having to do with the handle system and identifying and in this context the object would be the representation of the information so that it can be managed in the Internet environment. And so we are talking about the management of the actual data structure and associating with it information that's related to that, and in this context the whole discussion about the IPv4 6 is really not relevant because you have an unlimited number of identifiers at the object level that can be resolved back to an IP address or several different IP addresses or something that's been invented in the future, some follow on to IP. IP is going to be with us for quite some time. But there are logical extensions and follow ons to these systems that in a thousand years won't

look like IP today. The idea is to build in the management of these structures so they cannot only exist quickly. Like, for example, some of the cancer research projects where you want the identifiers to be a fraction of a second and then they go away but may exist for quite some time. And in that context the medical devices is the information that's mapped in to the device that's then communicated with other information resources to have a managed information space which is terribly relevant for the individual particularly in the health care environment.

>> WOLFGANG KLEINWACHTER: Thank you. Hong?

>> HONG XUE: Thank you, Wolfgang. Where the presentation and discussion really is aspiring to me is really informative. I am personally interested in the impact of Internet for things in international trade. This is really a big issue and it seems the current international trade system is very much unprepared for this new technology. I want to emphasize three legal aspects in international trade law. One is privacy. We know we don't have a global privacy protection system and there is some ad hoc mechanism to regulate cross border data flow. And the famous is the European/U.S. very dysfunctional agreement on that. So I am curious about the future of Internet for things while the flow of information will be more ubiquitous and there is no appropriate corresponding regulatory system on this. The second thing is the paperless international trade. This has been raised on UNCITRAL many times and in 2005 it published a convention on eCommunication and international contracts. But there is that convention does not mention these things at all. It seems they didn't anticipate emergence of the IOT so quickly.

The last one I guess is very emergent and that's the new initiative being done at the United Nations. United Nations economic committee for Europe. They are doing a kind of a single window initiative. This is something that's relevant to all of us who are doing researching international trade. It is kind of a one stop information submission from business to the Government. This is extremely important for the import and export. If you do the paperless it would be so effective. You just submit and send an e mail to Government and you claim all the customers requirements. But I am actually drafting an original agreement for UN CAP and we are having a meeting next month. Think about as kind of RFID, even think about this potential and possibility and a (inaudible) of this.

>> WOLFGANG KLEINWACHTER: Thank you very much and it shows that really everyone has to widen its perspective. It is much the field is much larger. Something behind the horizon but there is something behind the horizon. The world stops not on the horizon as we know it. Markus?

>> MARKUS FIEDLER: When I heard first time the Internet of things I didn't imagine, from my ignorance, I didn't imagine that it was about RFIDs. I mean the notion is sometimes really misleading. I was very happy to hear about the Internet of subjects because thinking about end user empowerment and also the individual, yeah, it is about very much about security of course but also about other aspects. And I think the discussion over the last minute has shown that we are still we have very different pictures about what all this is about. We are depending on what we have been working on before which examples have in mind and I very much agree with Wolfgang to perhaps raise the debate on a higher level and see where are the common things, the commonalities.

This is also something we are doing in particular in a relationship between the Internet of things issues and what we are doing in UNF because on the first time there was no connectivity there at all. After awhile and we are currently working on these issues we realised that there are a lot of aspects that are very much similar between the different areas, the different types of networks, different types of applications and this is something where we also like to get in our expertise in to this domain in order to see what we can do in order to improve the security and to improve the performance and to improve the economic models or economy and also to improve the green footprint of the solutions.

>> WOLFGANG KLEINWACHTER: Thank you. More statements? Discussions? We probably, you know, then we reached a certain level of understanding and then I would use the remaining three quarters of an hour to

discuss, you know, how we should move forward by revitalizing the Dynamic Coalition which was originally initiated by Francis Muguet and I am also very happy that you remembered his ideas and in particular on decentralization. As you know the Dynamic Coalition is not a defined clear concept or it is very dynamic. Oh, Peter.

>> PETER DENGATE THRUSH: Thank you. Peter Dengate Thrush from ICANN. Would it be possible to have time now that everyone has a shared understanding of what Internet of things is and what the opportunity presents and I am grateful for Hong's explanation of issues. If now that we have time what changes, if any, to Internet structures and principles are required to deal with an Internet of things?

>> WOLFGANG KLEINWACHTER: I think we discussed it partly before you came in the room because we referred to the workshop we had last year where we discussed whether there would be a need to have a similar system like for domain names and IP addresses in the DNS and then we moved to the ONS, the object naming system and the answer was no. There is no need for a single root. There is no need for an ICANN for the Internet of things. So it should be a totally decentralized system. And the option we discussed is probably to have a federated system that we have this all various roots, you know, just have a platform where they can communicate to each other if needed. Because while in the real Internet or the Internet as we know all individuals should have an opportunity to talk to all other individuals. There is no need that all objects, you know, have the opportunity to talk to all other objects. If the devices which we linked together in the network described by you can communicate to each other this is enough. There is no need that these devices have an opportunity to discuss with your fridge at home and to know how many eggs are in the fridge. It reacts to regulate your blood pressure and then you get an e mail.

This is another thing but this is driven by the needs and the needs are defined by the individuals. If the object meets the subject but then is more a legal and privacy issue as we discussed also before you came in. The objects around, you knew probably more about yourself and it means to control the objects and the data within the objects which are around an individual. And so that means this linkage, this rendezvous point it is not the traditional understanding of Internet governance, but it is a political issue that has to be discussed. If it goes cross border it is very personal objects around and in different jurisdictions that would apply. It is also very personal issue and probably because the swift and stream exchange of data between U.S. and Europeans we also discussed in the European Parliament and there are new challenges and you can probably also make an additional comment what you think about challenges then for the agenda of the next year within the European Parliament because I think it is also for the parliamentarians a new challenge and it will not remain in the U.S. European bilingual organisations and China is a big player. You probably have a comment there.

>> PETER DENGATE THRUSH: I have hope that Bob is having fun at his press conference because this is an exciting conference. I would like to go to something that he proffered during his discussion. If we think of the Internet of things, and if I am misstating this correct me, we don't need to think of it today but in terms of the future in terms of flexibility and innovation because the opportunity for the Internet of things tomorrow may be completely different than the opportunity today, whether it is by technology limitation or by legal limitation or something new that's going to create additional opportunity. I guess from our perspective we suggest to think about flexibility in terms of the Internet of things.

>> MARIA: In fact, what are you saying of fact, of necessity, the cooperation the need of looking for cooperation at international level. It is in my report and example that you put on health and the control of the blood pressure, et cetera, in fact, that exists actually. In fact, this is a pilot project that people, I have a friend who is in this pilot project. I mean that we are talking about the future, but in fact, we are leading now in the Internet of things and I think all the issues that has appeared here from different people, from different sectors are there. That's the big difficulty because someone here tried to define what is Internet of things and someone answered that's impossible. I would say also that's impossible. It depends on each one and the users that we do with Internet of things. And for the next month, the next years in the European union, in the European Parliament as I told you we are going to see a new communication on trust, on security. Probably in two months

we are going to discuss this. We are going to make revision of the data protection directive in a few months also because we have this directive since 1995 which is out of I would say out of order and we have put these examples that every year we are going to evaluate the situation of the use of Internet of things.

But I think we are we talk about Internet of things but in fact, we talk about Internet and all these network world and I think with Internet of things we have the same problems that we have in the Internet on data protection, on trust, but every time because the applications are much more complex and are much more complicated then every time is much more difficult to maintain this balance. You talk about Internet of subjects. I think that's a very good idea but the problem it is true that the objects they connect and they are related by themselves. Then I think that the all we can do is try to be in contact with all these stakeholders and to try to work together. This is why I will appreciate I appreciate very much all your interventions here and all your words. And I really appreciate also because you know that we go and working on these issues. All your suggestions that you can send us to all of the European Parliament members of the parliament that you can find to the European Parliament net. And all the European Parliamentarians that we are involved in industry committee and in committee we are working on these issues. I appreciate all your suggestions. If you permit before you start I would like to I have something

>> WOLFGANG KLEINWACHTER: Thank you for coming and we hope that European Parliament will keep this on the agenda and if you would be ready, you as a person or your committee would be among the listed members of this new Dynamic Coalition.

It would be useful because as I said in this beginning this is multistakeholder and we have to have policy people, technical experts, business people, academics and governance people and the European Parliament will certainly remain a key player and is a key player. Thank you. Just before we go back to okay. Yeah.

>> My name is Vic Jomar from Internet New Zealand. On the one hand we have a European Parliament report on possible regulations. On the other hand, we have had a discussion. We haven't quite got the definition and understanding of the scope of Internet of things. Isn't this a bit odd that we are not sure of what the definition is? We are not sure what the opportunities and problems are and yet we already started talking about regulating it. So I would be interested to hear examples that people have of actual loss or actual problems or issues that exist today rather than issues that may exist tomorrow.

>> WOLFGANG KLEINWACHTER: Any comment to this?

>> LENA: I am Lena from Electronic Frontier Finland and I agree with you we don't have a very good idea of what is about to come, but I think it's more of a question than getting and drafting enough regulations that we should ensure that existing regulations should be applied to the new things coming up in the future.

>> WOLFGANG KLEINWACHTER: Absolutely. That's my personal position.

>> I also fully agree with that idea. Because from our experience at GS1 and PC Global when we speak about privacy and security we have the very general idea in the beginning and then when we went deep in the detail our ideas moved totally and we have to separate difference in our eyes. You cannot consider it. Every scenarios in one try to regulate. It is not possible.

>> WOLFGANG KLEINWACHTER: Thank you. And I think also playing with words is nice but that's not really enlightened us as such. As Louis said to start with the definition is probably the wrong approach. We should try to define issues and criteria so we have a certain list and say okay and then very often if we go deeper then we see that what sounds new is not so new and that means there is no need for new regulation. We have to broaden our understanding to be innovative in using the existing legislation. But unfortunately she has left already but this is normally what is going on if a new issue pops up and then parliamentarians ask can we define. There are issues which should be discussed but there is no need to have another law of 200 pages which, you know, produces only work for a special group of consultants and doesn't help to settle the issue and insofar

the role of such a Dynamic Coalition would be also, you know, to transfer knowledge to the places where this knowledge is missing. And so that we can raise the level and to have a certain common understanding in one of the first actions I would propose for this Dynamic Coalition is to go along the proposal made by Louis to say okay, what are some criteria and issues that we create not a common definition but an understanding. So because I also, you know, in some other papers I saw from the Governmental side who move now from the Internet of things to the Internet of services and certainly can have an endless chain of new kinds of Internets. Midservice wants to bring the Internet to the mass.

If it is another Internet if you communicate with space travel. This is not helpful playing with words. We should define issues and issues that you have raised or Sophie has raised and we have to build the issues, the needs. What is the right swear to it and is there really a need for some kind of arrangement or governance issue or a legal issue but very often it is the end of the process and not beginning. People start first with the law and then create a box and then they ask what we put in the box and this makes no sense. We should start with the issues and then build around the issues certain applications or regulations or whatever. Patricia?

>> PATRICIA: Yes, I fully agree. As you were talking I was thinking that it goes to the very essence of what it means to be the Internet Governance Forum and it was a platform for discussing issues and emerging issues that might require a coordination and sometimes the coordination is a bit technical in nature. For example, maybe Bob mentioned before I joined you this morning our we are working on intraoperability of heterogeneous information systems but it means systems that have different maybe technical approaches. Perhaps the data is structured in different ways and there is a need to have the information flows managed. Some of the technical aspects in this context are also part of the governance because in some ways they dictate what it is that you are talking about. And so the actual ability to talk about the issues in this open way I think is part of the essence of governance as we are now addressing it and I would invite you if you have thoughts on the Internet of things or the Internet of services and to think more broadly of the Internet going forward and the ability to have the technology evolve to meet the needs that people are developing in their own worlds in their own companies.

>> My name is Stefan Jones. I am with the country code Top Level Domain in Sweden. One is regulation, regulation before or after and let's just remember how the so called ordinary Internet was actually developed. It was developed under the rate of policy. Under the rate for regulation. No one knew what was actually happening until it was there. So if we keep too much focus and actually talking about the regulation and taking things in the right order we will probably have no result at all. That's my first aspect. Second is okay, what are the problems. Do we have a listing of the problems. Yeah, we do. The European Commission has also made a recommendation a couple of years ago safeguarding or regarding, for instance, integrity issues regarding the Internet of things and RFIDs. They are written and even if a governance wouldn't accept all of it it is at least a list of thoughts. So work has been done before. Thank you.

>> My name is Hubert Cetner. And I am also a German representative. I think this discussion was quite informative for me. And it is last minutes do we have a need for some regulation in advance. I would say no. That's the first reflex. But I know that there are existing laws and especially concerning privacy that have to be complied. That's a natural issue. And I think there is a use of such discussion we now have is really for the also for the governments to know what or to get an idea what could be the role of the government in this because we don't have a fixed clear role and understanding what is the task for Governments in this question. It is private sector driven and that's a first answer. And then we have to see is there a need for the Governments to interfere or to offer some awareness raising to several parts. Maybe as mentioned to citizens but maybe also to small companies that are not able to participate in this kind of discussion and in the actions because they may only be able to apply this new systems and therefore there may be later in a later stage a question of how to have some kind of awareness raising. Thank you.

>> WOLFGANG KLEINWACHTER: Michael, Michael Rotert.

>> MICHAEL ROTERT: My name is Michael Rotert from the European Service Provider Association. In one

of her speeches, Neelie Kroes said when talking about the digital agenda she warned from overhasty regulation, if the politicians come around to oversee regulation, it says then there might be some regulation but please don't regulate everything at once.

>> I appreciate both the comments that you made regarding we don't know what it is but we have to regulate it mentality. It is very concerning to business and I cannot imagine what that type of message says to small businesses who maybe don't have a list of consultants they can call upon to interpret these rules or what they can or more importantly what they can't do because it is very difficult when some of our scientists come up with a new way to do something. Whether it is a health care or smart grid or even something simpler than that and the first thing we have to do within the company is are we permitted to do that service. Mother, may I provide that service whether it is in our country or a foreign country, cross border and it is it really limits the ability to have that type of innovation hit the marketplace. Because one of the questions that we always ask is, you know, does the existing legal framework whether it is, you know, normal privacy rules, deceptive trade practices, liability, fraud, just general requirements, are those sufficient to cover these new services that quite frankly we haven't even thought of. And it reminds me when I was working on the Free Trade agreement with the U.S. government in South Korea and we ended up with an eCommerce chapter and the question we have to ask ourselves is architecture drawing different if it is sent via e mail, FedEx or mail. What changes all of sudden when you go from a paper copy to an electronic version and how does that apply to the other services that we hopefully will see in the future come out in the marketplace.

>> WOLFGANG KLEINWACHTER: Thank you very much and this leads now in the last couple of minutes of a more philosophical approach to regulation and unregulation and I was impressed by part of a speech in the opening because he used the terminology that I always use, innovation without commission. Because this is a field for innovation here. So we innovate things. And the big difference if you go back to the history between the invention of broadcasting and telecommunication, if you compare with the Internet is that the first thing which happened after the invention of broadcasting and telecommunication was the law which declared something for legal and illegal. If you went outside the spectrum in broadcasting, if you used a device that was not covered by the law and it was illegal and so far the telecommunication and broadcasting laws stopped innovation because they did not allow people to think out of the box and to come with applications using this technology like the frequency spectrum or the wires and all this because it was regulated, if you left the law it was illegal. You risk to become jailed. I think is a value in itself because this is the key driver for economic growth and this is the message when they gave the speech here. And he said this is what the Internet has brought to us but we have to be very careful by taking in to account the various complicated issues and privacy issues and trade issues which needs a certain stability and security and also includes some legal measures but that's an element in it and you cannot start with the legislation. I think is very, very important. Devina?

>> Speaking from that perspective and the history of law that you know very well it is business that asks for law. This is a terrible contradiction here. We want to know how we price and who we bill. This is how every single technology before the Internet was locked down. So it is always the business in America especially that has put pressure on the FCC, et cetera, to get regulation. So maybe here as a coalition we have another way of trying to invent law or a different kind of law that is not motivated just by how do we bill. And where other interests can apply their attention to the regulation. Maybe it is a different kind of regulation we need but historically and this is happening to the Internet now as well, those who are closing, those who are regulating actually succeeding in regulating is business, not the citizen.

>> WOLFGANG KLEINWACHTER: It is very specific. You are principally right.

>> Just a comment. Of course, there should be regulation. Of course. There are mechanisms for regulation even today. There are regulations for competition, for protection of privacy, et cetera, et cetera. But there should never be a specific regulation for technology. That is a loss of thoughts. So that is the point I am trying to get through here.

>> WOLFGANG KLEINWACHTER: Thank you. Sophie.

>> SOPHIA LE PALLEC: I don't think that the point was not to regulate but rather can we define more precisely what we are trying to regulate. Another point I would like to raise is before to analyze the issues that could be that could result from the Internet of things, first we should also try to analyze what could be the barriers to have Internet of things emerge. Because it is not here and why isn't it here. How could we help to develop it faster. And are there any barriers that prevent this technologies or new usages to develop, to emerge.

>> Just a short answer. The current technology is one of the major barriers.

>> SOPHIE LE PALLEC: No. Because well, we could discuss about technologies or perhaps just one point where we are not speaking of the same things because when we are speaking about technologies it is not just networks for RFIDs. It can also be data and the way we structure data and the agreement we have on the way we structure data. Because if you want to speak about objects, you have to define them and you have to define their attributes and that's not just RFID of our technologies. So it is things that we are able to do from years. It is not new at all.

>> PATRICIA: I would say that's one of the things we could talk about at some future. I was very interested when you said that might be a barrier. I can remember back in the broadcast satellite you mentioned that everybody define what a broadcast satellite service was and that's what it was. But you had you have now young person home can do a app. And they don't have to get permission to do that. They just sign up and do it. They do their own. Grant it there is discussion about competition and all the regular laws in society would come in to play. There is no reason you have to reinvent the wheel every time you come up with a new technology. What I am looking at now is the dynamic evolution of the ability to manage information and I would caution about talking about necessarily objects because it could get confusing with the representation of the information about say the bottle and the information as a data structure that most people in the management of the information in the Internet would call objects or digital objects is our parlance. So there is technology that is evolving that would actually open up the flows of information between things and people and regular representations of conventional information as in identifiable data structures. So I think the technology is quickly evolving and I would be delighted afterwards to talk about how you perceive a barrier there.

>> It is interesting when you start talking about specific technologies because if you look at the WTO commitments that were drafted many years ago there is actually a commitment to open your market for facsimile machines. Can you imagine today writing a WTO commitment and talking about faxes because that was the technology used to move data? And as we are thinking about the Internet of things or objects I suggest that it be very broad and flexible because I hate to see us locked in to a definition today that limits us in the future.

>> WOLFGANG KLEINWACHTER: If I am looking around then probably we can close the discussion now and use the remaining minutes to discuss a little bit the procedures for the reestablishment of the Dynamic Coalition. As I said a little bit earlier in the IGF context there are no clear rules for Dynamic Coalition but anyhow to get recognized you have to fulfill certain criteria and so that you are listed and on the IGF Web site. Probably can give us some more detailed information on the Dynamic Coalition will be registers as a Dynamic Coalition. Can you say some words?

>> AVRI DORIA: I can. I am Avri. The conditions are not strictly set forward but each of the Dynamic Coalitions that has gone before and listed has basically written up a basic document stating what its purpose was, what it intended to do, how it intended to go about that. One of the important ingredients has always been who is participating in this coalition. So in order to be a coalition one needs to have a multistakeholder representation. And so there needs to be people from the majority, if not all the stakeholders groups that are saying yes, we are going to work together. The other part of the word being dynamic shows up more in terms of

a long running in terms of having a group that's listed and a group that basically continues to get space at meetings and such and that group has to do something. So not only does there need to be an intention and an objective and a set of partners who are the coalition there also needs to be a plan to get things done, a set of events, a set of tasks, a set of papers. It really doesn't matter what this set of things is. But there needs to be some set of deliverables or intentions. Beyond that the other requirement is basically to report at least once a year on what the activities have been in that year and if the Dynamic Coalition desires to come and have meetings to sort of review what's begun on and to decide what else to do. Hopefully that helps.

>> WOLFGANG KLEINWACHTER: Thank you very much and this is helpful and according to this explanation. Table some very concrete proposals. More or less people in the room that the reestablishment of Dynamic Coalition on Internet of things is a good idea, I would ask this question, let me look around. Who would be in favor of the reestablishment of the Dynamic Coalition? Patricia?

>> PATRICIA: Yes. I think it is a good idea but to not do remember you said before about the Internet of things and the Internet of services and the whole idea that you are going to have X number of Internets. The fact that the Dynamic Coalition focused on the growing Internet of things on the Internet going forward. That's probably too many words. But the Internet of things as part of the Internet more generally because I think that's where you get the real growth going forward.

>> WOLFGANG KLEINWACHTER: That means you question the name of the Dynamic Coalition.

>> PATRICIA: That it wouldn't be focused strictly on Internet of things because that invites, you know, Internet of bottles and Internet of refrigerators and just splinters, things to an extent that I think the intraoperability of the information systems is really where the action is today in my view and to have the Internet of things as part of a consideration of Internet information management more generally is what I would suggest.

>> You have a proposal of what you thought?

>> I can share some thoughts.

>> WOLFGANG KLEINWACHTER: I will put the name in brackets and then after our homework we will probably remove the brackets. Before we go back to the secretariat we have to produce something. Avri?

>> AVRI DORIA: Just one quick omission. I was looking at it and one other thing that a group needs to do is build itself a mailing list and a presence on the network and I forgot to mention that. Sorry.

>> WOLFGANG KLEINWACHTER: That means that the name is in brackets for the moment but I see more or less that people say okay move ahead. Create this discussion platform. Bring the various stakeholders together and the main mission of this Dynamic Coalition would be outreach enlightenment and, you know, being a clearinghouse and observatory of this process. This would more or less be the mission of this Dynamic Coalition. To make a contribution to the various groups and various stakeholders get a better understanding of the complexity of the processes behind this new developments. I think this is more a general mission statement now. We should have this more precise on paper and we will produce a small document which will define a little bit of the mission and your objective.

>> You know, some of the discussions here but it would seem to me that the single most important contribution that could come out of a grouping like this is to identify what needs to be worked on, thought about, developed in the context of what we all I think understand this Internet of things that would be different from what you would typically deal with in an Internet context. What are the technical or social, political steps that need to be taken in order to make that a reality if it is going to be a concept you can talk about independent of the rest of the Internet itself. Protocols for light switches. Protocol for refrigerators to read what's inside their

contents. Protocols for managing nuts and bolts.

>> WOLFGANG KLEINWACHTER: To have this very pragmatic approach the concrete proposal is that we generate from the e mail addresses, we just got a list and send out a questionnaire to all of you asking for one or two, you know, ideas what to do. Issues or criteria so that we get a better understanding of what we have to do. And what should be then the more or less precise actions which could come out of this Dynamic Coalition, and the midterm planning we should have at least one or two smaller conferences, expert meetings although between now and the next IGF in Nairobi. So we are planning together with the UNF network another expert meeting probably in March 2011. And another one probably the end of June 2011. And this could be used, you know, that some members of the Dynamic Coalition would join this and we could further develop, you know, the idea of, statement or, you know, set of principles or what else or a set of issues so we can move forward and plan a workshop for the Nairobi meeting in 2011. So that we will use the first year as a year of identification to issues. To find out, you know, what we should do. Not to move too fast in doing already very clear defined things because we need time to collect the various ideas and then to have a list of which will guide us, you know, for further actions. Patricia?

>> PATRICIA: We were just talking to get rid of the square brackets. You can Dynamic Coalition the Internet of things and then underneath our slogan would be we put the "it" in Internet.

>> WOLFGANG KLEINWACHTER: The it?

>> PATRICIA: It is usually viewed as a thing. We put the "it" in Internet. May need a little work.

>> WOLFGANG KLEINWACHTER: Thank you very much. It is a little bit playing with words is nice. But as I said it does not really, you know, solve the issues, but on the other hand, we live with words. And we live with a certain imagination which comes with the words. That's why even wrong descriptions using wrong words for real processes sometimes, you know, survives because we people, they are okay; this is my understanding and I use the word even if it is not the right word because they have a certain understanding and we live with this reality and so far the wrong terminology. Internet of things is partly established and it is difficult to remove but by saying this is not a correct description but if we have an understanding of what we mean we can probably live with the weaknesses of the language.

>> They just created a new word, the Internet. No N.

>> WOLFGANG KLEINWACHTER: We do not need the permission to use new words. And the Chair of the ICANN board has already left because probably we would there would be a need to ask him whether he would allow us to use this word because this probably will undermine the future of ICANN.

>> (Off microphone).

>> WOLFGANG KLEINWACHTER: Okay. I think if you agree with that then we can go to a close. We will circulate this on the Web site and I may introduce also she is the secretary of the European Dialogue on Internet Governance. She is the secretary of European summer school and yesterday she was elected in to a large advisory committee of ICANN and she also signalled that she is ready to help us. She co organised the workshop on the UNF project. So she will probably be helpful in managing our list and the mailing list and, you know, her linkage to the other bodies allows us to use as an event like European Dialogue on Internet Governance which will take place end of May, early June in Belgrade, Serbia and we probably have a workshop there so we have a chain of ongoing events which will step by step help to clear the air. So in a couple years we have a better understanding and in particular have better bridges and better channels among the various stakeholders has Hubert said, and Maria from European Parliament policy has just discovered this as an issue and is still unclear what to do and have more discussion which will clear the air and could be helpful for all sites

and technical people and business people will better understand what are the concerns of politicians and each group can help better understand the complexity of the issues. I thank you for your participation in this meeting and let's move forward. Let's meet in cyberspace and let's come back to the next IGF in the end of September in Nairobi in Kenya. Thank you very much.
(Applause.)

Details

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