Track 3(a) Internet for Disaster Relief and Recovery

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Start: 9.00a.m

End: 10.30a.m

Chair: Izumi Aizu

EMCEE

Good morning ladies and gentlemen. Welcome back to the 2nd Asia-Pacific Regional Internet Governance Forum 2011. There will be two discussion forums this morning regarding internet for disaster relief and recovery as well as international law enforcements. Now may I invite Mr Izumi Aizu, the co-chair of information support pro-bono platform of Japan to chair the first session of this morning regarding Internet for disaster relief and recovery. Thank you.

CHAIR: Izumi Aizu

Thank you for the introduction and good morning guys. Yes I'm the chair of this session. I have proposed doing this and welcome.

As you know, big earthquakes happened followed by a tsunami and nuclear power plant failure, a sort of tripartite disaster. Either which so it's not a pure natural disaster but with some social man-made disasters. So on this session I'd like to cover several topics from the recent experience in Japan but also we have the pleasure to have other speakers outside Japan. They will introduce themselves when they speak up I think, in the interest of time, but Valens Riyadi from Indonesia will provide us more views about Asian-wide experiences to share. And what I propose is to have 8 minutes each of presentation strictly, and then we'll have some introduction before, but also, finally we'll like to have some kind of common lessons to extract from the presentations and see

what kind of possible frameworks to work for the next event.

Since this is an Internet governance forum, we'd like to have some kind of governance mechanisms to deal with these situations. My presentations and others will reveal some aspects of this as well. So without further ado I'd like to start with myself, breaking some traditions of chairs who stay behind the scenes. But let me just show you what happened, please.
(setting up)

Anybody knows how to deal with Microsoft? Alright, thank you. We always needs engineers help.

Anyway we know that this was the worst disaster that happened in Japan, at least since the Second World War. I don't go to the details of these, but we still have some missing people of 23 000 plus, and we really don't know how many unconfirmed these things are. Nobody really tells me anything about this. After 3 months, things are not getting better, in my view. It's my very personal and subjective view. Some parts are getting worse. But what do I mean? The natural disaster is turning out to be a social disaster. Some of the incapability, of the local central governments and others, with all due respect, are not capable of handling the problems, the way it's got to be. Many people are still suffering, even those who moved away from the shelters to the temporary houses. From Day one, they got really narrow. You'd be amazed how narrow these temporary houses are. Even those ants are coming, the rain's leaking and it was predicted, by the experience from 17 years ago, of the Hanshin Earthquake. 'Cause I've been working with this guy from Kobe who is known to live there. And so, unfortunate to say, that we haven't really made much improvement from the previous disasters, or post-disaster days. And flies are there, and out of the dead fish, etc. I just received a phone call from my relative. He's the head of a kindergarten. We can't open the windows, because with the dead fish there are so many flies trying to come in. So we need Amazon Wishlist to help, and we need that.

There's not a formal reconstruction plan of the country. There are people with some angers waiting for that to be announced otherwise they cannot start moving to where and stuff like that. So you will see these pictures and you will become voiceless, as many of the colleagues who went there have the same experience. But you have to then say something to yourself, you have to think, and you have to put your thinking into words, what to do. I had a long time friend there, he just said come, come and see, come and see. And this is the view of the place where I stayed, its just 5 metres down you see these, and after 3 weeks there were no rescue workers who came in until the next morning. So this is where I stayed. And these are the views. Now it's cleaned up, you see flawless houses, it's all sort of washed away, these houses were from afar. And many people buried beneath.

So the question I'll ask - What can I do, or what can ICT, or the Internet do for them. There was little emergency preparedness among our community. If any, I'd like to see, in writing, or in an exercise framework, of the Internet community. They did bridge up afterwards, but it's all ad hoc, mostly. And also the information gap is a source of wider problems, in effective logistics relief and support works. It's very obvious. And out of that we came up with a so called information support pro bono platform. We propose that it's a multi-stakeholder platform. From Day 1, I called government offices and found out about these hierarchical structures, even they have very well minded, good intentions people in charge, the system given doesn't work, we noticed there. So we agreed to form some kind of coalition amongst the different stakeholders but based on the individual status not based on the organizational or social status. Tateishi-san I called him and others and he will tell what they did. So we try to coordinate, laterally, the Google came with Microsoft, Yahoo, some voluntary information providers, to help the victims, sort of the refugees. Some of us tried to send the machines for the recovery works, some of us worked on the common application platform interface, API, for information support, the API among different web-based services. With some work from the voluntary office of the government, information matching for relief works and matching the needs and the supply.

The volunteers went to the shelters, NGOs coordination amongst themselves. We visited the local government who need more support. So the private sector individuals now try to support the government, not the other way around. And the state government couldn't really reach to the real field or places. Even though they made several visits, these local people couldn't tell what they need. I don't have much time to go into details now, but the layers of people between the central government and local government in the field are so huge. But somehow we got sort of a back channel. I went to some of the city offices and listened to them and connected with the generals straight. That's not the way it should be, but that's the way, sometimes the only way to reach. Naturally it was a multi-stakeholder approach, but there's no formal setup of such. Something in parallel with Internet governance is the multi-stakeholder. It is sort of emerged, nobody really prescribed, but we're having some lessons.

So these are my summary for my 8 minute presentation and we'll go to discussion later about this. Without further a due I would like to ask the next speaker. Tateishi are you ready or should I ask someone else. Almost? Please come.

Toshiaki Tateishi

Good morning everyone. My name is Toshiaki Tateishi and I'm from Japan Internet Providers Association. So at that time, during the earthquake, March 11, I was in Tokyo. But my hometown is very far from there.

I'm thinking so many things about that and so now, what we can do for emergency times? I'd like to speak on some my comment. At that time many telecom stations were broken by the earthquake and tsunami. So I think that many lives could be saved if the information system was not broken, like the mobile phone and the fixed line. The subject is how we activate infrastructure for 72 hours. As you know, 72 hours is the limit for saving lives. The day when earthquake occurred, of course the electricity power was down, we could not use the Internet, and the mobile phone's inactivated. In Tokyo other times everything was okay except railways. I had to work, so I didn't have a hotel on that day, so I was walking along the line in Tokyo to the next place. I've never seen so many people on the road. So many! As it goes you know the railway was stopped so

many people couldn't go home and there was a bunch of people on the road. But we cannot call anywhere in Tokyo, but I can make a call to my hometown, long distance call was available, I don't know why. Other people who were in Tokyo, for them Skype was very useful. As you know the IP phone uses a different system from a fixed line. And by Twitter, we could use some useful information, for example, rest places, food, and railway recovery. By midnight, the subway had recovered. Sometimes the Internet is very useful, I think.

Only power supply is needed so we can use internet and IP phone around there. Many mobile stations were recovered by satellite and   NTT, Softbank Broadband, and UNE mobile.

They are still working. But there are merits and demerits. The merit is that only power supply is needed so we can use the internet. It takes much time to set up, at least one week or two weeks and we know it's not broadband.

So I'm living in West Japan so I feel there are some differences for those who live in East Tokyo and West Japan. On TV we can see just impression movie we could not get any information of other places along the tsunami area. We can only see houses broken and most of them are flooded by the tsunami and still we have earthquakes in East Japan but those who live in West Japan never know about that. So the problem is how we inform the people who do not live near the place where the earthquake occurred, and the information from the TV does not report. So we have to be prepared, and we have to have an emergency route for an emergency time, but we have one more way, not only the way - we need an application a software for every time, but also we can use emergency time. We have to share the cost with not only the public, but also the industry. For example, in Kochi Prefecture, we have live cameras. In ordinary time, for sightseeing, fishing and surfing, we can use the live com by controlling the weather side. But in emergency time, for the typhoons and tsunami, we can watch the waves through the internet, so in Okinowa, it's very far maybe 1500km from the earthquake place but one fisherman was dead from the tsumami, because he went to the coast to

watch the tsunami. So for now, we have to have an ultimate way to access the Internet.

This is the last slide, it is not easy but we have to do that. In Japan we only have one point with the IXs in Tokyo. If Tokyo suffers from a disaster, we never access the Internet, even very far from Tokyo, so we should have IX in the near future. We also need some application, or a common API which we use in everyday life and we can use it in emergency time. Thank you.

CHAIR

Can we move to the next speaker, Tsuyoshi Kinoshita from CISCO and also from the Internet Association of Japan.

Tsuyoshi Kinoshita

Thank you for the introduction. My name is Kinoshita from CISCO. I have another capacity outside CISCO with the Internet Association of Japan. Here today I am basically to share one of the examples of how the internet community helped out, or helping out, I should say, as their efforts are still ongoing, in order to help out the affected areas. So as I share the picture of those affected areas, I thought I make start off with sharing how the internet is being used by the people who are evacuated to the shelters or by some of the people that are providing aid, such as American healthcare organizations and so on. But nevertheless what I'm going to talk about in the next few minutes or so is the group of people from the internet community in Japan, how we got together and then acting on the recovery of the internet infrastructure in some of those areas. We have actually formed a private and public partnership type of volunteer organization comprised of the universities and also the government, and also the industry such as CISCO and Microsoft and Intel and so on. But more importantly we have also partnered with the operating companies because even now, which is about, I mean it has been 3 months since the disaster happened in Northern Japan, most of the wholesalers does not have the wired line infrastructure installed yet, so only the communication telecom vessel will likely be available is with either subscribe or the mobile operator's infrastructure, so early on we realize that we need to somehow work

with those subtract companies on mobile operators, so we actually have to work with IT staff, we also Skype up with JSAT for this effort

The other key point of our activity was that we basically, had early on decided on that scope of audit is to provide internet access until such a time when the local government or the people in the affected area are able to have the permanent access of the internet services meaning that the people at the disaster that they had internet infrastructure services. So when those things get destroyed we felt that it is kind of an exit strategy for us to help the people. So we began our effort almost at the end of March, so it has been about two months of the public private partnership voluntary effort of the internet community. has been going on, and we have about 43 sites deployed of internet access and services and most of the Japan, but although these 43 sites that we have provided internet access may sound a little large, in volume, but when the disaster happened on March 11, the government published about a 1000 shelters where people were evacuated so we're actually touching on 5% of the total shelters that we're actually looking for, this kind of help.

We've actually spent the last two months and still the effort is going on in order to help other people in those areas. So how have we began our journey? First we have found a need that the people in those affected area, disaster areas, are really facing a challenge to communicate what kind of needs they are looking for the survival and for living. Unfortunately the tsunami after the earthquake really wiped out most of the infrastructure including the telecom infrastructure as well as the IT infrastructure and so the people who fortunately survive, they are really lacking a way how to communicate with the organizations who are here to provide help. So only when they are at that time, in the past I would say one month, or three four weeks those shelters are able to communicate their need to dispatch to the people in the far end.

In the geographic picture of those affected areas, which is most areas, and those of the supply and support services are available from Tokyo which is 300 kilometres away so in order to find out the needs of those affected areas. So many people actually go into

the sites by vehicle. But once again in the initial few weeks, clearly the situation that gas and vehicles are lacking, so that people are really disabled in terms of how to communicate about the need of help that their looking for. We have kind of picked up a number of initial inquiries. We have the internet and then through that we begin having discussions with the voluntary organizations.

The Japanese central government cabinet office, they're working with… (Chair signals time is up) So we have then dispatched the people working in those areas and also putting the equipment onsite. And in the last three four weeks we have switched gear towards the main thing for those equipment we deployed in those various sites, locations. The other key point is that we have made those internet for everybody. We wanted to distinguish between those who have access to the internet. Once again we provide the internet free of charge, it's a free internet. So we basically say that it's free internet available. So if we wanted to use for information sharing to provide internet access infrastructure. The three methods we have used in order to provide internet at those locations, one is a satellite from JSAT or IT Star, along with the 3G, 3G is capable of providing internet data services and we actually utilize the technology to run this effort big time so this is why.

For my key takeaway, I believe with some of the points Aizu-san touched on, but there are still very much dependence we have seen about uncertain information coming from the affected areas, and obtaining information is very difficult and very costly. Once again people need to go in and find out what exactly those evacuated people are looking for. Also gathering information and aggregating that information to make a right decision to provide support for another challenge we face, and also whether or not information is reliable. Somebody have to access, whether the information coming in is up-to-date and whether the source is real or reliable. That has been stated as a challenge, and I would say that in the shelters, who are equipped with the IT infrastructure, internet access, with the IT literate people, are able to communicate their needs more effectively, meaning that any shelters who are not equipped with IT infrastructure or IT personnel are kind of facing unbalanced support from other organizations. So I think one more last

comment from me is similar to what Aizu-san said, Japan is lacking a structural approach on how to deploy the internet which is now part of the infrastructure for the society for this kind of circumstances, so I will suggest that we really need to have a deployment strategy, that's not only for supplying equipment, but also personnel because in those disaster area, the talent is clearly one of the key success factor that of how the internet can be utilized for the wireless purposes. So that's the kind of short (Chair interrupts)

CHAIR

Thank you, sorry to rush you. Now we have the pleasure of having Deborah Nga from Google, and according to many Japanese who work there, their personal finder among others worked very well to try to search those who were missing for those who were alive after we find them. So Deborah, you ready?

Deborah Nga

Hi everyone, my name is Deborah and I'm from Google. I handle policy and government relations for Southeast Asia. But today my sharing session will be really all about like what my previous speakers have spoken about before. How we use technology for disaster relief in particular focus on Japan, because it was the most recent event that took place. Thank you Mr Izumi for those very kind comments, I think when the disaster struck it was really just about everyone coming together and trying to cooperate and work out solutions as quickly as possible. I just have a short video clip about what we do in general when it comes to disaster relief (Video plays)

(Various Narrators)

It's the monsoon of a generation and villagers across Pakistan are knee-deep in gushing water. Panic, terror and misery have overwhelmed this lonely corner of Southwest China. A race to save lives as the hour stretched on, prospects start to dim for people still trapped in rubble. The worst of the damage can be seen when you compare the pictures of what the cross-shaped national cathedral looked like before the earthquake and after the entire roof caved in. And only Oshika peninsula, it looks like..

simply nothing is, look at that. Nothing is left. It's called Google Person Finder App, latest technology to turn to when phone services are down. The tool lets those searching for people in those disaster zones post their names and picture. Person Finder has been used in Haiti and Chile earthquakes, and organizations like the Red Cross. Now, it's offered in Christchurch.

(Video End)

Deborah Nga

As you would have seen from the video you we've actually been using our technology quite a bit in trying to deal with disasters and crises when they happen. I must carry out though that we do not claim to be experts in crisis response. Ultimately we are actually just computer scientists and developers. Well most of my colleagues are, I'm not. We are still relatively newcomers to this space, but our mission is really to try to use Google's strengths in information and technology to build products and advocate for policies that are just global challenges.

Now I think my previous speakers before me have given a pretty good, thorough review of the challenges that Japan faced after the earthquake. So my presentation is really going to be about what we as Google tried to do when a disaster strikes, and what we did particularly in the Japan study.

So basically when a crisis strikes our key objectives are to help disaster relief agencies get a sense of terrain. As you have seen from the video, we try to provide this by giving dated satellite images of the Earth. We also try to aggregate information through adding pages, Google Maps and providing citizens Youtube, so that people can see what's been going on on the ground. We also try to help people find their loved ones, through Person Finder, which is a special tool that we created after the Haiti Earthquake, Picasa, which I will go into greater detail later on, and Google Docs.

So after the earthquake hit Tokyo, hit Japan on March 2011, what we were able to do was to collect and publish satellite imagery in the first 24 hours after the crisis. However

as you can see from the pictures here, the resolution of the images still wasn't that great. And given the scale of the damage, what we wanted to be able to to provide sharper images so that agencies could identify which areas needed more help. So we knew that our Geo team had an airplane at our headquarters in Mountain View, that could capture high resolution images of the terrain. So with the help of the Japanese civil aviation quad, we managed to get approval to get out after flying over Japan to take images of the affected areas so that the images would be sharper. And we managed to do this in two weeks and the next image - you can't really see it that well here on the powerpoint. But basically, this next image shows you the picture of what it looked like after the capture when it's all cleaned up. This resolution is actually about 15cm whereas previously it was about 50. So it really was very useful in terms of helping agencies, government agencies, to be able to get a sharper image of what's going on on the ground.

As mentioned in my 2nd slide as well, what we also try to do is to help aggregate information so that people can go to one place and find out everything at one shot. These 3 snapshots basically show what people would have seen if they had typed in the Google crisis page for Japan. As you can see there are areas for people to make a donation. There are also, in using our maps, we managed to overlay information, showing things like where the nuclear power plants were, the shelters and areas of evacuation around the nuclear plant.

We also opened up our maps to allow for sharing and collaboration amongst the community citizens. This map is actually a user generated map that shows various information needed for living in the disaster area, and it was developed by volunteers and citizens across multiple prefectures. And it was linked directly to the crisis landing images that you saw earlier just now.

So if you click on the icons on the actual map, annotations would pop up and tell you things like the days or the hours, or the banks or ATMs, people depended on this map

to basically identify which gas station they could go to, or where they could find fresh water.

I think Mr Izumi earlier just mentioned about the person finder, so just to give some background, we basically built the Person Finder in response to the Haiti Earthquake, because we realized that there were multiple websites that were being created that were similar but they did not join the data together. This meant that families and aid workers had to keep track of many similar tools across different websites when looking for information. And what we did was basically try to solve this problem by creating a common back end to store data which complemented a common open-standard format called PFIF for transmitting this data. In the Haiti version it was pretty basic, but in the Japanese version we managed to refine this further, and allow people to provide searches in multiple languages, to access the platform in multiple languages as well as to provide searches in various forms such as in Romanised form, or the Hirigana reading,

This is a very interesting case study. Now I think it was mentioned earlier. In the initial aftermath of the earthquake, a lot of power services were down in many prefectures, and those in Tokyo did not know if their loved ones at home were alright. And we noticed that there were actually a lot of handwritten notes that weren't being captured and put up online. So what we did was we basically created a dropbox, in Picassa, for people to capture photos of these memos and upload them or email them from their mobile phones. And then what happened was that a team of volunteers from Google, this is where they actually had to go a bit more old-fashioned and manual, and a team of volunteers from Google actually then worked at transcribing the information from the hand-written notes that you see and then putting them into Person Finder. Of course after awhile we realized that there was just too many handwritten notes so we called out for volunteers and we were actually really surprised by how people were just logging in by themselves, transcribing the information onto Person Finder. And as you can see from the note at the bottom of each photo, every time somebody finishes transcribing the handwritten memos, they would just take the initiative to write and say that this one

has been finished and it has been transported to Person Finder. So finally, despite all of what we've done, we realize that we can really do a lot more, because as the previous speakers noted, we realized that because of the lack of standardized information and data formats, things were a lot slower. So and we also realized that the public often comes to us for emergency information. So moving forward, we think that there's a lot more that can be done. One of the things that we can look at is perhaps to obtain a common standard for distributing alerts across the web. And this is where we would suggest something like a Common Alerts Protocol, which would allow all the agencies to speak in the same language. So just to give a very brief background about the CAP, basically its an XML based data format for exchanging public warnings and emergencies between alerting technologies. It really allows warning messages to be consistently diseminated simultaneously over many warning systems. Basically, this is what we're ultimately looking to do, where you can have all these alerts which would come from government agencies in this raw data format that gets sent to all the platforms like Google, and we can show this information in multiple languages, multiple countries, on a Google scale, and there would be no ads of course as well. And that's it.

CHAIR

Thank you. Would you be able to send that to share the slides so that we can still know more about your presentation? It was great, thank you. Now, we would like to have the special pleasure to hear from Indonesian experiences. Valens Riyadi, the head of NIR (National Internet Registry) and Indonesian ISP Association. He is from Jogjakarta, where the volcano was there, and a serious earthquake also happened. But also they may have some operations after the Aceh tsunami disaster. So Valens, the floor is yours.

Valens Riyadi

Good morning, I would like to present my experience regarding how we handle disasters. Since the tsunami in Aceh in 2004, I've been in several other disaster areas in Indonesia. Right now I represent, APJII. APJII is the Indonesia ISP Association, and also I'm a volunteer and founder for Airputih Foundation, which is a special foundation

for IT task force for emergencies. Usually when nothing happens, this foundation does nothing, but when there is a disaster we have some people ready to go and do some IT project on the disaster area. And most of the people who work for the foundation are volunteers.

December 26, 2004, when the tsunami hit Aceh, it's really a big disaster, and finally the government said that almost, around 200, 000 people died. I think it's one of the biggest disasters. APJII as the Indonesia ISP association, we sent some people to the disaster area. On that day, 4 days after the tsunami we sent 2 people and another 4 people on the 5th day of the tsunami. It's very difficult to get the transportation to the disaster area. It's quite far, it is 2000 km North of Jakarta. If you have to send by car I think it takes almost 6 or 7 days and some of the roads are blocked by the tsunami, so its quite impossible to send help, at that time, by land transportation so we have to try to get air transport and it's a little difficult. And the team finally got to Banda Aceh, using the Australian air force, they send some of the planes to help Indonesia. What we do in one month there is we cleared several WIFI area, because on several days after the tsunami, it's really difficult to go to news from inside the area. Almost no one understands what really happened in the area. And we reestablish 2 local ISP. This is the fastest way to get the Internet connected again in the area. Actually before the tsunami it was probably a cyber cafe, but we give help technically and also equipment, and we encourage them to establish an ISP. Also we serve about 20 NGOs, international and local NGOs, to do the relief programme in Aceh and surround area. And also after that we established the foundation.

Because this is a big disaster area, the foundation worked on the area for 1 year, and we made a wireless back hole with a pre-YMX technology, donations by corporations. Also we made a website with all the information, all news, all the shelters, data, we also created the short code SMS so that people can ask and give information. We also made the early warning system application and community development programme.
These are some photos I got from 5 years ago. When we get to the area, sometimes we have to really clean up the satellite disks as you see. And the yellow tent is one of the

WIFI area we made a governor's office so the journalist and NGOs can use the Internet there. And this is the map where we plan the develop the pre-YMX technology, to make 3 central GPS in Banda Aceh, and the other 50 CPE in Banda Aceh, so I think it's a good wireless network there. This is the photo where we installed the equipment. The condition is not ideal, but we had to try to do it.

This is some of the media centre, we made in several areas, including Nias, Padang and several points in the Banda Aceh. After the Aceh tsunami, I have Airputih Foundation keeps doing the support for disaster relief. There are some areas that are hit by the disaster, Nias, Wasior, Pandang, Bengkulu, Yogyakarta and other areas. And my other case is about last year, when the Mt Merapi eruption. These are some of the photos from the eruption. The mountain is located only 25km from the centre of Yogyakarta where I live. So it's really close to the city and really an active volcano. Every 5 years the volcano erupts, but never as big as this. I think this is one of the biggest eruptions we've had in 100 years. The first eruption happened on Oct 26, almost 50 000 evacuated, because the government cleaned up a radius of 10 km from the mountain.

The news we had was in a tradition and technical way, it used communication radio, it's 149 megahertz, its a radio communication, not the FM radio. But some ISP made a relay on this conversation, so people in the city and people outside the area can really understand what really happened. The communication is about what really happened on the mountain, because they have a live report about the mountain's activity. The second eruption, the government extended the evacuation area to 20km. At that time about 100,000 people had to be evacuated in one night.

APJII deployed 20 WIFI areas, at the government building or refugee camps, and half of the WIFI area were wiped by the second eruption. And we think that the WIFI area is not a very convenient way, and then we initiated the FM radio station to split up the news distribution to the local people. The government assigned the temporary allocation, 100.2 FM, and we made this radio station 24hrs a day on air, live from the

national BNPB compound, for 30 days. This radio was operated by 59 volunteers, and also streamed on the Internet, so we distribute the information through traditional media and also the Internet. This is the photo.

This is the conclusion for my presentation when the disaster happened, it is really one of the primary things that we have to deploy in the disaster area, because for the communication, most of the time the telephone lines are broken. Voiceover IP is one of the alternative ways we can communicate, and also right now we have also new technology to open BTS we can make a temporary GSM network so we can have a spatial DSM network on the disaster area.

The equipment right now is not very big it's quite small and not very expensive. Also for the information dissemination, sometimes the world knows better than the people in the disaster area. We also have to see how we can send the information to the people in the disaster and also of course for disaster management, data collection, relief supplies, missing persons, community programmes, shelter data and everything...
Of course we have to make the preparation for all the equipment, people, services, technology, application money etc, and these have to be done before the disaster. When the disaster happens then there's no time to prepare. The team has to be able to make an immediate response in one day. Usually relief foundations can send their people in one day after the disaster. We have to be able to utilize local resources, it's very important because it is really difficult when you have to bring every equipment with you to the remote area. It's better if you can utilize the local resources, and also make a collaboration with the government, NGOs, Red Cross Society, and also have the IT skills in wide range of technology. I think that's all for my presentation. This is just an illustration you can see later in my powerpoint. I made this design 5 years ago after the tsunami. Thank you.

CHAIR
Thank you Valens. Almost all points of the lessons, I find them very much pertinent to what happened in Japan. Which we knew you 5 years ago. Now, first I'd like to call out

any questions or comments from the audience or amongst the panel about the presentations and then we go to more discussion. Any questions?

Salla from Fiji

Hi I'm Sala from Fiji, I worked for a licensed courier, and we also deal actively in terms of response to disasters, not that many of the disasters have been to your scale, tsunami, cyclones and that sort of thing. Having said that, I also note that we live in the Asia Pacific which is known for the Ring of Fire, and the disasters do happen in them. Unfortunately, people have to wait for things to happen for them before they take action. So I'd like to congratulate the panel in term of discussing this relevant issue in such a tenancies.

One of the comments I'd like to make is first of all there needs to be a developed.. I'm not sure whether Japan had it or that Indonesia's built it, or that any of the countries in the Asia Pacific have it. A critical information infrastructure protection mechanisms where it's not just about having the infrastructure, deploying the network and having a.. we need to address issues such as resilience, in terms of when a disaster strikes, and I think the speakers in the panel have alluded to them very effectively.

The second thing I'd like to point out while we're in a multi-stakeholder forum, is we need to.. we make up a significant percentage of a voting block in the United Nations, and if we use this Asia Pacific Forum for record, we can partner and lobby within our countries to secure them and make the relevant submissions, get the governments to push it in terms of the UN General Assembly.

You don't have to wait for someone else to do it because the reality is not going to happen. And I'm putting my hand up to say that really Jakarta would need to look in that direction, and if we do that we can see through the necessary holes to be able to see a real traction then. And what are some of the things that we have seen, and having further discussions not limited to the idea. Thank you.

CHAIR

Thank you for your wonderful observation and proposal. Any comments from the panel about the first point on the CIIPO critical information infrastructure protection? Was it there in Japan?

REPLY

(Kinoshita) There is a framework with regards to critical infrastructure protection. However the participation from ICT industry is limited in information aspects, or information technology aspects.

There are varying companies, ports, utility companies, those are part of the national CIT forum. However the participation from ICT industries are limited in information security aspects only. I think there is room for Japan to represent and then to actually cover them for ICT.

CHAIR

From what I understand from the Japanese government, they haven't identified the Internet as such. They have made several round reports about the recovery of the information infrastructure or communication infrastructure meaning telephone fiber, mobile phones. But there's no sort of integrated on how the connectivity is guaranteed. So there's the layers science has broken into, into different layers, not integrated as they, from the users or people's viewpoint. That's the problem we felt thus far. We have organized some review team studying what went where, or what went wrong, or how they recovered. But it is far from say, sufficient level yet, in my subjective view. Any other comments?

REPLY

(Kinoshita) Related to your 2nd point, one of the lessons from the LOR engagement, this time we do see that Internet access and usage is done by most of the wireless devices, which is no PC but on tablet, and so on. But what I'm trying to say is that it could be ideal to see a common access ID established for this kind of purpose, regardless of the people, where they come from, whether it is domestically or overseas,

it could have a common access ID recognized. That could make people very easily access the Internet infrastructure. So for us we kind of picked up the Internet as access ID for everybody who would access for this purpose. Internet is a very recognizable, so whenever WIFI access can pick up signal. Anyway that is comment.

REPLY

(Gwen) This is Gwen from APNIC. We are a multi-stakeholder environment here at the regional IGF, and obviously the panel represents a number of different interests. In an emergency, it is very hard, there seems to be a lot of people who want to do a lot of things and have a lot of different capabilities and capacities. From you experiences a progression of different emergencies right from 2004 to 2011 now, what can you say about how we can bring those stakeholders together, with short notice, who has to lead these things, who's the best stakeholder to call people together

CHAIR

Good question, any answers, any comments?

REPLY

(Valens) Thank you. If I'm putting for relations, we have several relations with some other bodies in the United States, because we were invited after the Katrina Hurricane in the US. Also, 3 people from the US, I think from the wireless (?) (1:00:40) association in the US came to Banda Aceh in 2005.

They worked together with us in the field, but for the common disaster area, the difficult thing is that usually the governor leads for the disaster area it's the government. I think it happens in every country. The NGO, the signal participation only has additional from the government. But sometimes its really difficult to deal with the government. We try to help but it looks like they don't like us to be there. I think it happens everywhere. But sometimes we have to not think of the big things, sometimes we have to think of the small things. Yes make something small but usable for people. I think it's easier than if we have to think for the whole country and we make the whole programme work with

the government.

CHAIR

If I may, my own experience working with the government in local and central, if you have personal relationships, then you are trusting. That's what we tried a lot. But we hugely encounter with organizational resistance, even though you have connected in general, doesn't mean the guy in general treats you as colleagues. It has been frustrating as Kino-san mentioned that we could only reach 5% of the shelters, roughly speaking. Although our NGOs are now the people also trying to help, and telcos did try to help. In the first place, the shelters, they shouted to us that we need gasoline, we need electricity, we need food, we need blankets. Now we were literally told, and we couldn't deliver the message what kind of good things you can deliver if you have Internet. When mobile phone, telephones all those things are up. Eventually when they are starting to require more connectivities to supply a multi-national, they made some, well, only about 12 for the NTT, they were upgraded. They were installed with equipment, the areas, most easily readily available to facilities or transportations are. While the big things, really, in the more   heavily-hit areas really need more help. There was not a real holistic view or a bird's eye view, other than the Google Maps, or satellite Google. That gives you a vicious cycle. And that's where it might be a coordinated effort of the stakeholders of the governments and NGOs in the industry should work together. But we didn't have any standing mechanism, until today. We don't have any office where many people can come in to get information physically inside and outside the devastated areas, to be part of the holding by telepresence, so whatever. But we didn't have such a part. In Japan, no regionally or internationally. And I see as proposed that there's a huge need, that we can learn from past year's experience would be new that saharna used there, which we couldn't use it from the beginning in Japan. So there are surprises coming, you know, community, I was not there before what happened, so we are not ready, so Debbie you have something?

REPLY

(Deborah) If I may just add on to the comments that were said, I think in principle, there's nothing wrong with the government getting involved in taking the heed and in principle in fact they should take the heed. I think the challenge is in terms of getting them to be more open in terms of sharing the data, because I think this was mentioned by Mr Izumi, there's often a lot of skepticism or there isn't really that sort of attitude of wanting to share the information with organizations and if they could create sort of a one-stop shop where organizations can go and get information very quickly and they could iterate on it and build on it and add on to it, that would be really fantastic, but I think until that happens we will probably have to work in an environment when things happen, everybody kind of just pitches in and tries to do whatever they can and add value based on their organization's strengths.

I think also in Japan's instance, just speaking from Google's experience we just found it to be a lot easier to provide the services that we did as opposed to disasters that we faced in other countries because Japan is a far more interconnected city than a lot of other places like Haiti for instances. So even though the infrastructure went down for awhile, we were able to get it back up again and people have smartphones, mobile phones and people were able to pitch in using technology. We also had a lot of engineers in the Japanese office that really helped at that point of time getting the necessary technical expertise of people to create all these really fantastic tools for people to contribute information and share in with everybody else.

CHAIR

Alright there is some more, one, two, three, in that order.

REPLY

My name is Yan Aryanto from Indonesia. I want to a little bit stress that Valens seem to forget that they do something more than what is mentioned in this presentation. I put it clearly in a platform for public involvement because in my opinion, it is the important thing in Indonesia, the public, people organizes themselves, not the government. Even the government uses the network, even the military, the people who should be ready for

every condition use the network. That's the most important thing, and it became viral in Indonesia. It was very clear in the Mt Merapi eruption, when they created a platform for public involvement, a lot more places did the same thing, they give people the access they need and a lot of public centres came up in Mt Merapi area. So people know what they should do, people know what they should say, so the information is very much clearer.

CHAIR

Alright any response? Or should we move to the next question? Ok next, Miwa

REPLY

(Miwa) My name is Miwa from APNIC, my heart was torn between this session and the Arabic revolution session, so it was a very interesting discussion happening over there talking about the quality of social media, the impact of social media during the revolutionary period. And I have the same question: during this disaster period in Japan, earthquake period, I don't live in Japan but I monitor twitter very very intensely, and I could see so many type of information going through and I thought if I lived in Tokyo, or I lived in Japan and I seriously really needed information over the nuclear plant disaster situation, or nuclear wastage, what is happening now? And probably I'll be pretty much confused by reading whatever was going on twitter, so was there any concerns raised about the authenticity of social media, information going through the social media, and has anyone pointed it out and anyone talked about what is the most important thing to pay attention to during this disaster period, how do you see social media and so on.

CHAIR

Thank you for the question I have been waiting for, so is there any answer to that?

REPLY

(Kinoshita) I just want to share what has been actually happening on the ground in the disaster area in terms of how the internet is being utilized or used. Although Japan is famous for its high technology, I touched on the smartphone, the tablet PC, the devices

being used for internet access. That's true, but the other discovery we found through the engagement, is that in those affected areas there were a lot of elderly people who were not equipped with IT literacy, so those people did not have a chance to utilize the internet. They are actually dependent on IT talent available at the shelter. In terms of the social media, I think that wherever the IT professions skills are available are utilized big time, but there are other shelters that are not equipped with any IT talent, and doesn't use IT at all, that's the kind of digital device situation I observed because of the elderly people who are mostly evacuated in those areas this time.

CHAIR

Thank you Kinoshitasan, it is a partial answer to the question especially for the authenticity of the information over Twitter or Facebook. If I may, there are different views about this in Japan, there are some people who claim that Twitter really worked well for the refugees working inside Tokyo when the railways stopped, where you can find some food or convenience store still open. While there was some confusing information about the nuclear power plants and those other chemical plants blasting or were going to blast. There was a lot of mild information, wrong information and usually it was corrected by the same medium Twitter. Some people start to say that "no no no" that is sort of a chain mail kind of effect. And the government actually started to send some 'authentified' information or correction to say "Don't trust these chain mails." In one of the really devastated areas that the tsunami hit, the city government people told me directly that there was some wrong information about the temporary shelters that were going to close down in the next week that some people spread it locally. So even when there is not too much IT literacy amongst these mostly elderly people, they have some use of Twitter, some wrong use of Twitter but also some positive use of Twitter, it's all mixed.

To be a little bit selfish to promote my own activities, we are organizing a study or research to try to send a team of volunteers to all 3 major prefectures covering 20 cities and towns to ask questions according to the context or time, what kind of information you need after 24 hours, after 1 week, after 1 month or after 3 months, or during, and

where are you, how bad you situation is combined. It's very difficult to ask these questions if you almost lost your life. The flashback effect will happen, when you ask a wrong question that recalls your tragedy which they don't want to really talked about, but nevertheless we are trying to find out some kind of a methodology or methodological ways to evaluate what kind of information tools, or more trusted, or put way forward, what kind of measures you need for the next time. Do we only rely on the Twitter or the Person finder on Google for the large public use? That's the question we're having.

I think I have to go to you, Salla again.

REPLY

(Sala) Yes, bottom line for me is that we can talk about it, but there's a need for action. Here I hear Indonesia, Japan and here's Fiji and whoever else who would be interested, I supposed we could see you Mr Izumi-san since you're the coordinator for this, and sort of talk about actual ways to get this on the ground, nationally, have national strategies, how do we take it to our regional and how do we take it up. We still can't discount the need to exhaust the UN forum because there is an international law on disaster, I just can't remember what it's called, Tempeh something (Chair: Some treaty). Some treaty. But it's there, but the things is that we need to work on mechanisms and portray a little bit too in terms of revamping the CIIP to included disaster resilience because the thing is that we have to be intelligent and forecast and prepared, if not we'll be doomed.

CHAIR

Thank you for your intervention, any comments related to what Sala said? Anybody from the public sector? (Reply: totally agree) you totally agree? So under the capacity of Internet Association? (Reply: I'll be happy to) as well as CISCO? That's another thing (chuckles)

Well I organize the information support pro-bono network or platform and one of our missions is to reach out to the international communities. We have still the language is a big challenge for the Japanese at least. They are having many several offers from

outside the country just after the earthquake from saharna you name it, but people in Japan were not ready. You wanna say?

REPLY

(Salla) The other thing is that this is a critical year because 2012, I know ITU they are reviewing their resolutions, so it's a critical year to get things on the ground, roll and push it in, can be done

CHAIR

Is there anyone who knows that ITU and the Japanese counterparts tried to put some early warning for the tsunami systems right after the Indonesian or Indian ocean thing which went nowhere in the end. That time the Japanese were claiming that we had sort of the latest technology and the latest system of early warning that didn't work this time, mostly. I interviewed several local government officials there that created the first system 35 years ago and they put a lot of money. They depended on the electricity on the ground to have the GPS information coming from the offshore sensor 20km away. So these offshore sensors could send a signal of the wave's height. But the ground stations, there was no backup power working right after the earthquake, before the tsunami coming in, so they failed to really capture the thing. The review is now on going, besides that, there should be some more international effort. I will talk to my government and also the industry and the NGOs need to go forward to make more partnership than just staying in their cycles.

REPLY

(Sala) The other thing I should mention is that in the pacific region as well as so back across international regional organization mandated to look after disaster risk management and also you have early response mechanisms in Hawaii and other systems of course. So the thing is not the early warning, that's been picked up quite well, we have the infrastructure, but the question was what the first speaker, Mr Toshiaki raised was what do we do when we get the information, within 72 hours do we have the infrastructure to implement it to deploy it, so that is the question.

REPLY

My name is Margiyono from Indonesia and I'm from the Association of Independent Journalists. Indonesia is more complicated as it is an archipelago, islands, not a continent. Also another problem is that there is about 40% of Indonesia's area where electricity is not available, even in normal situations. Usually the disasters such as the earthquakes and tsunamis happen in remote areas and according to my account. Usually information technology used by people outside the disaster area such as in Jakarta or other places, know more about the updates, but people who live in the disaster area never get the updates or the early warning information etcetera because they don't have access to internet, and the cellular phone network doesn't work, so that is the problem.

CHAIR

Valens, we see a foundation, do you have any sort of standing mechanism to send some troops if something wrong happens say next week, and where the funding comes from.

REPLY

(Valens) It's quite difficult to answer. Most of the assistant personnel relations and we try to work as low budget as possible. It's not like a usual NGO, where people get hire and deposit. Most are volunteers. Usually some IT associations in Indonesia also make donations for the foundation, like APGII is the IT association. Usually they share some of the costs of the programme when we face a disaster.

CHAIR

I will give half a question to two gentlemen here. Also the vice chairman of 2 internet related industry associations, one internet association of Japan, another people a provider association. Do you have any standing mechanism before the earthquake happens so that it can be utilized or do you have any plans to do so.

REPLY

(Toshiaki) So obviously we don't have a mechanism of how to respond to this kind of disaster situation from the internet association standpoint but we are certainly recognizing the need to put the frame up in place so that all the members from the internet community can go in and alert each other so that we are able to respond to the situation more effectively.

CHAIR

Many of you are members of small ISPs spread across the nation from east to west here and you mentioned the perceptional gap between those who are heavily affected in the East side of Japan and those who are not. There is a very huge difference in attitude. How about your association, are you going to put something to the future.

REPLY

(Kinoshita) Indeed we don't have a special way to recover from such big disasters. But I think that in 2000, in Hokaido, Mount Usu made a big eruption but no one died, because everyone escaped, because the trust was there. People were going to their office and they talked about the eruption, and they trusted each other for many years. The police officers told the people will go away as they warned people about the eruption. I think that if the warning came from some strange person who says "Go away because mount USA will make a big eruption in 2 or 3 days" then no one will trust them. So that was a big escape from disaster for the people. We can help and trust the people in a local area, we do not need technology such as smartphones and 3G but the point is the local area.

(Valens) For the preparation I know that Airputih Foundation have a good communication with the national disaster management agency. So anywhere where the disaster happens they communicate and know how to work together (Question: In Indonesia?). Yes in Indonesia, national disaster management agency. And also we have some equipment ready in hard cases, ready to ship and bring to the disaster

areas, including 20 laptops and several wireless links and a VCET for satellite application.

CHAIR

Well we need to sort of wrap up shortly, from what I have heard there were not sufficient preparation at least in Japan, there are some ongoing activities in Indonesia which tell us some good lesson to the Japanese and the rest of us, there is not much international or regional framework, multi-stakeholder as Sala mentioned in place, but there is a huge need perhaps to fill in the gap. Some private sectors like the Google ones really sort of compensated or supplemented the areas where the government or public activities is not sufficient, similarly the application did things.

 Some therefore by Kinoshita tried to filled the gap, but again it's not quite sufficient because the scale or the magnitude of the disaster are much wider and deeper than most experts, even the disaster management professionals had imagined, which is a shame, because if you learn the history over a 1000 years you can find many similar cases happening every 20, 50 years across the globe, and we have much more money, much more technology than 50 years ago, 100 years ago, but we have many more victims as well, because they are living in the costal sides where more infrastructure, communication networks, bridges and railways got washed away.

But anyway, the reason we perhaps need an interest at this moment to carry over or carry on, and so those who'd like to join efforts to come, we'll work some kind of continuous thing. One of my personal motivations to organize thing session as well as organizing new activities was back at my work after the Kobe earthquake where the internet was fairly well used that time in the next day of the earthquake and a lot of information in English from the city government in Kobe. But afterwards, the internet community in Japan did not take the lessons forward, and I see some of the technologies created, the services created after the Kobe earthquake, of the 171 dialing system, it came after the "I Am Alive" project, that telcos started to have a special kind of system where you could put your own information or you can search for the information which didn't really work well. The technology stopped development 5 years ago. And they didn't really have API or open data, or put into cloud. A similar thing

happened, Japanese version of relief support systems, at last there's a huge effort made, again it was 5 years ago that technology development stopped. So when you really want to install to the servers you have now, you have to do a lot of customization. Right after the disasters we were motivated to do something because of the tragedy you feel. 5 years later, 10 years later the effort's gone down, then another big thing has happened, so let's see what we can do in a few months time and a few years time and then we come back.

Any other final comments from the panel, anything? Deborah? Okay? Any other thing? It's still okay, any observation?

REPLY

(Kinoshita) The country, whichever that adopts ICT in the infrastructure will have a much bigger challenge in terms of recovering the way it was before the disaster happened. In case of Japan, because the infrastructure was pretty much built based on the mobile so what we actually see in those days when back to normal age so although I did not get into details because of time, but we actually find out about the use of the internet during the initial 2-3 months, how the internet can be utilized in the narrow bounded environment. Why the advances and the use of internet got advanced in society. So there is a mismatch between how the people are using the in the mobile time while their environment available in the disaster recovery period, and this is maybe something I just want to share with you all.

CHAIR

Thank you Kinoshita-san, with that I'd like to close this session. As a privilege of being a chair I can give you some token of appreciation if that is the case. (Applause)

EMCEE

Okay thank you very much for your attention we will now have a short coffee break outside, enjoy the snacks outside and please gather back at 11 o'clock for the second session of this morning, thank you very much.