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PACIFIC: A REGIONAL AGENDA FOR INTERNET GOVERNANCE"
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DEVELOPING A DIVERSE AND INCLUSIVE INTERNET THROUGH
INTERNATIONALIZED DOMAIN NAMES
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>> JIA-RONG LOW: Welcome back. Thank you for coming back on
time. I know people will be streaming back in the next few
minutes from the coffee break.
Let's start because we have time keepers to remind us how much
time we have. What is the difference between this session and
the session earlier? The earlier session were talking about the
aspects of universal acceptance. Today we are zooming in on the
work required to get Internationalized Domain Names, which is
domain names in local scripts in place. How do we get that kind
of work done?
So I am just going to start very quickly regarding today's
speakers. So just introduce Mr. Hiro, the Director for JPRS,
also involved in the Japanese Generation Panel.
The next speaker is Mr. Wanawit. He is the Advisor to the
Permanent Secretary, Ministry of Economy and Society of
Thailand, involved in the Thai Generation Panel.
And the third speaker is Edmon. He is the CEO of DotAsia and
the Universal Acceptance Steering Group Vice-Chair.

Then the last perfectly is, last but not least is Pensri. She is a Project Lead for THNIC and also with the Thai Generation Panel involved in that work as well.

I'm your moderator, Jia-Rong, the Vice-President and managing Director for the Asia-Pacific office from ICANN.

The technicians, I need a bit of help. After you shifted this, I can't click through the slides anymore.

Okay, thank you.

So the agenda for today, I know this morning a fair amount of what Internationalized Domain Names has been covered, but I know some people just joined this session also. Bear with us. We will go through some of the basics again. And this also is a good opportunity for those who have listened to this morning's session, if you found it too difficult or technical, you get another shot at it.

Now, after that we will cover the Japanese Generation Panel and the Chinese, Japanese, Korean, CJK panel's coordination work, followed by the Thai Generation Panel and the Khmer Lao Thai coordination work and touch on universal acceptance and share some local examples on promoting Internationalized Domain Names in the local markets.

Then we will do a discussion. So I know there is a lot of interest in having more discussion. So I will have to ask the speakers to try to keep to their time.

Now, very quickly, just to let everyone see the context. The Internet when we use it, basically is to connect from one device to another device, be able to communicate with each other. And in order to do this, you need unique identifiers. In other words, something that identifies your device versus mine. Then we can communicate with even other.

This unique identifier system is the simplified way of saying it is that it runs through this domain name system, the DNS. Everything we use on the Internet, whether it's applications, your browsers, your email, runs through the domain name system. There are two very important concepts we need to understand when talking about a domain name system. They are domain names and IP addresses. So domain names are, for example, www.ICANN.org. You can see below the numbers that's there.

We've covered how this works quite a bit. So I won't go into how it works specifically. Remember these two things. Domain names and IP addresses. In domain names they have levels. On the right most you see the .com. That is a top level domain name. The www.example.com, the second is the second level domain. At ICANN our work is to coordinate with the stakeholders in the world to ensure that there is a single system where there are no duplicates in the domain names and IP addresses. Domain names and IP addresses. At ICANN we look

after the top level space, the one. The first is the generic top level domain name. .com, .net,.org that we are all familiar with. We are also familiar with the country code top level domain, like TH here in Thailand. The third type is Internationalized Domain Names which are domain names in local scripts. You can see a few different scripts. One in the script for the Indian kind of Hindi scripts and then the Chinese script and Arabic script.

IP addresses, as I mentioned, there are two versions. IPv4 and IPv6. I won't go into this very much.

Now, quickly I'll set the context for the Internet growth and domain names and why people are looking at Internationalized Domain Names. Now, the first is this slide. Basically everybody in this region we know half of the world's Internet users come from our region. And there are now more than 3 billion Internet users in the world and 70 percent of the total growth of the Internet user space comes from our region.

And as we use the Internet more and more, every company, organisation is going digital, even for us. We want to use the Internet more and more. And to use it as a space for our own identity as well. So people are thinking about their own branding and marketing and also for ourselves, how do we, the business models, how do we use it online? How do we brand ourselves online?

And it is very strongly tied to domain names because it is easier to remember your own brand name. Like Nike.com or Microsoft.com. It's online. If you want people to find you, it is easy to remember a domain name that allows them to associate themselves with and the users, your customers, they can easily go on your website and access information there or access products or services there.

Now, as the Internet expands and more and more people come online we realise that the traditional original 22, what we call letter C generic, .net, .org, they seem that all the good names are taken up. Restaurant.com, very expensive if you want to buy one, office.com is taken up already.

At any new people coming on to the Internet, wanting to have their own domain name are finding it harder and harder. There is not enough space for that. So the domain name system is currently expanding and it has expanded to now over 1200 top level domains, like .nike, .chanel, .wiki, .Catholic; for regions or cities, .NYC, .Tokyo. Or Internationalized Domain Names, in this case two examples here on the screen for you to see.

So why is this important? Now, we have three plus billion Internet users in the world and they are currently over 300 million domain names. Now we are all talking about the next

billion users. And if we look at the next billion users coming online, how many more domain names will there be that can service the next 6 billion users. My personal take, 3 billion now Internet users, we are looking at a growth of 100 million domain names. That's a conservative figure. For many companies, you don't hold on to one domain name for yourself. You want various domain names related to your business. So the next thing also is that if we only think about English, that restricts the number of domain names there can be. But when you open it up to local languages, then your various local brands and local languages will all be in that space, which is allows you to access.

So right now these are the Internationalized Domain Names that's dedicated to the route that is available. And there is a limitation here because if you look at the number of Internationalized Domain Names, IDNs on the left side, it is only limited to a number of scripts. Well, what about some of the other scripts in our region? Are they here? They are currently not here.

What do we need to do to get them available to be part of that Internet infrastructure so when people want to use it, they can? So this is the key question that we need to answer here.

Now, I'm going to go a little bit into a technical area just to give you an example of what kind of work is required to get that kind of work done.

Now, on the left is a typical technical term for the Latin-based domain names that we are very familiar with. And it is basically called the ascii domain name. So www.W cafe.com. It is limited to the A to Z letters.

Now on the right side is the Internationalized Domain Names and the kind of challenges that you have to look at, it's very different from the ascii ones. The ascii ones focuses on letters A through Z but for Internationalized Domain Names it is not always based on letters and even the letters themselves are different. What is the letter in your script? An R is in the script. Like in the English A to Z, every letter is unique, but you could have different language where a letter has a difference in itself. I will pass the responsibility of showing everybody how it looks like to the panelists here. So they will show you some examples.

But what is important is to think about this, that if this is the responsibility of ICANN, my organisation, and I am a Singaporean who speaks three languages, if you ask me to do this would I can't. I don't represent your community. So we need your own community which is who is well versed in the script you are using to put that, to determine what character or letter can

actually be a Top-Level Domain. So that really is the keyword that we need to do. We need to work with you directly.
This slide is to say in each community, for example in Thailand we have to gather technical experts, linguistic experts, policy experts to come together and look at the Thai script, for example, and decide which letters, characters can be a Top-Level Domain, which levels are variance and cannot be and decide the rules for it. Once we decide on the rule, then it goes into a larger pool of all the various scripts. And they can be used for Top-Level Domains going forward.
That work by putting these experts together, you form a Generation Panel. So that's why you heard the words like the Thai Generation Panel, Japanese Generation Panel. Because that's the work, that is the panel that the group of experts come together to do that kind of work.
So the current status is we have 19 panels formed currently, covering 28 scripts and there is actually a very small number. There are many other scripts that are currently not covered. The work computer covered is Arabic, Thai, Lao and the Khmer script, they finished their work and under progress are the Chinese, Japanese, Korean panels, the neo-Brahmi, Cyrillic, Latin. There are like Vietnamese where the A has a hat on it or the E has a small E as well. How do you include those? And some like Myanmar, Sinhala and other scripts accordingly.
This is one example of how the work is required. It is a very complex looking table, but this one is an example of the Arabic script where the panel, the Generation Panel has to look at every single letter in the script and decide which are the variants, which one can be a Top-Level Domain and which one cannot.
Now, there are various ways to get involved in this work. The first is to tell us whether you want your script to be available for Top-Level Domain. And that is when you can write to us, to the work at ICANN.org. The work is being done by the will panels, sent out for public comment, so you can provide your comments there. The third one, of course, is to sign up and get regular updates accordingly.
This is where I'm leaving this portion of. I'm going to hand over to my colleagues, Hiro and Wanawit to talk about the work that involves the specific Generation Panels. I hand over to Hiro first. I give them a minute to change your slides for you.
>> HIROFUMI HOTTA: Okay. I'm going to my slide, please.
So my name is Hiro from JPRS, which is a Domain Name Registry. I am also the Chair of the Japanese Generation Panel.
So I will talk about the making rules for Japanese coordination. Next, please. What is the route? Just Jia-Rong mentioned this is an image of. I borrowed this picture from the ICANN website.

So, for example, this shows the domain with all umlauts. For example, all umlaut and O. Those are characters are thought to be the same if we, in the case we think that these are the same. If we have or someone has a domain name, a TLD, Top-Level Domain domain with umlaut, then no one else can have that domain with no umlaut.

Okay? Because domain with umlaut and plain domain they are considered to be the same, so no one else can have the same one. Next one, please. So what Japanese Generation Panel does is usually the same for all the language Generation Panels. So the mandate is proposing TLDs for Japanese language and script. That can go exist for LGRs for other languages and scripts. The second one is the key for the root zone. That means Top-Level Domain because at the TLD, all the labels of Top-Level Domain share the same space, which is a global space. So they have to coexist without interfering. So the second one is the very important point. So the steps we are taking is step one, populate the Generation Panel with diverse experts. I will expand on this later.

Step two, we define the requirements and basic framework of Japanese LGR, which is our rules. Based on experience and expertise of Japanese IDNs.

Step three, coordinate with other language Generation Panels, especially of those languages interrelated with Japanese.

Next, please. So what we should care about. First, consult taste with the local community, which is Japanese in our case. So we investigate how the rules for Japanese TLD be. And post the draft to the public web page, for example. We present and discuss about the rules for Japanese TLD with, for example, with Japan trademark association because there are many Japanese companies which their trademark wants to have TLDs with their names in IDN.

And, for example, is IGCJ which is the Internet Governance conference Japan events. I talked about that and discussed with them.

And we will post our draft to the public comment Forum and we receive comments and responses and some like that.

After that, we will coordinate with Chinese and Korean communities to discuss about the TLD. I will expand this later. And alignment with the rules for second level domain levels because we do have the second level Japanese domain names and .JP. The Japanese community or the community who uses the Japanese labels want to have the, hopefully the same or similar rules for second level Japanese label and top level Japanese level.

So we should align both of them. So under the JP, for example, under the JP, of course, and under some gTLDs such as Japanese IDN.Asia or Japanese IDN.com.

Step one, populating the JGP. These are the members from Japanese community with diverse expertise. As I said, I am a domain name manager and the second one is Vice-Chair from JPNIC which is specialized about Japanese governance. And some Japanese academic researchers and trademark and domain names experts and trademark expert and gTLD expert and character code experts and technical experts. Our members are very diverse.

Next, please. Step two, the first version of JGR, the first the scope of the character codes. We decided that we will have kanji and Hatana which are used in Japanese everyday life. Especially for kanji, which is the Japanese industry standard level one and level two, are adopted. And for variants, so it is the most tricky part, but in Japanese case, for kanji, our rule will define no variants at all. But we will adopt variants of Chinese rule and Korean rules as our final LGR.

I will explain this later.

For the whole level variation, this is a very complex part, but for example, this character cannot be at the Head of a string, or something like that. So we have almost no rules such as that.

Next, please.

Okay. And this is a chart showing that Japanese, Chinese, and Korean share the same scripts and the same characters. To define rules for in this case Han characters, this is called kanji in Japanese. For Han characters, we should coordinate how to define. For example, next page, please. The second line, there are two characters in kanji. The first is a machine and the second one is a desk. These two characters are the same for Chinese people, but they are totally different for Japanese people. In this case, should these two characters be considered as the same? Or be different in the global space? Chinese panel and Japanese panel must coordinate, which we should take. Independent or the same?

So we coordinate this. And essentially coordination has been completed. And the second one is maybe I should skip this because it is very complicated. So next, please.

Thank you. So we will leave the questions to the later part. We will have next have someone explain a little bit involving the Thai Generation Panel.

>> WANAWIT AHKUPUTRA: Thank you, Jia-Rong. I hope that I don't need to skip all the slides I have. It is very technical by nature and I am not technical.

The issue is, I think, I tell you the scenario how it looks like. The Thai language is top development work since let's say

four millenniums. We rely very much on the technology
suppliers. One of the proven factors we can see is that the
mobile phone and standardized keyboard doesn't exist thanks to
the way that the keyboard has been changed through the software.
So the scenario we are facing is when we start this work we have
to go back to through a lot of documents since '98, '99, and
even before that, the research paper.
So we are not really -- I'm not linguistics also as well. I'm
not a really deep technical. But I will share how we started.
A lot of people don't even know that the Thai characters have
been used in Thai script in the Thai character used in 35
languages.
We also have to understand that the code coming from the
unicodes like some earlier discussion is designed for printings.
And when you try to integrate into the world that you can read
from the mobile or, you visualize from the screen of the
computer and that is how it is created a little bit different
approach when we are looking at the technical point of view. In
Thai language we already select the Thai scripts are based on
the -- all this is coming from the information that has been
studied. I like to point out one of the, not contained in the
slide, during the discussion. We found out that the Thai
characters have been widely used for written form of Bali
language and have been used in the religious. So the number of
people that are using that is very few. But major is the monk
and the priest in Buddhists. And even though the number that
use is small, but the significance of the meaning of the
language is important. So we also have some discussion there.
So the Thai scripts, it is written from left to right. Nothing
is sexy there.
But the issue is we have the four lines the characters that you
normally put the upper and lower in general, is like that. When
I start my character, the computer only can written in eight
lines. The terminal at all times. We have to develop what we
call 25 lines in the screen. And that is quite significant
achievement that we have. Otherwise in all time you divided one
line for one upper and lower case characters.
With the mechanic world, you have the way to prevent, you have
to learn how to type the typewriter. There are defensive
mechanism on the back. If you put the upper and lower, the
character will get stuck in the middle because you need to have
a proper key sequence you need to learn. The Remington, or if
you go to the government, you need to go to the exams of how
fast you can type. It is very crucial because when you have
four lines and that is a problem: But today's world you don't
need to know Thai language.

The next slide we show how it looks like. If you have like this, upper and lower, which are the ones that you key in first. And the computer is not that smart. So they do not understand that that character, you need to put it in. So the key sequence is one of the problems that. Initially the search engine is not aware of that. And we have proved together with the technical team that problem exists for the search engine on the lower and upper characters. So let's move on to the code points. And I will not go to much of the detail but we have been dropped now. Thai starting from 71 code points. This means that 71 code. So we decide to drop three code out, totally excluded. For the Thai people, they will understand: Like Myanmar is used to tell that we repeat the first words. In Laos they use Myanmar, to keep that code point, but in Thai we include the code point because we did not see the need to have this on the Top-Level Domain and we eliminate confusion. So this is a detail you need to go through. So if you are not the local Generation Panel, how could you achieve this? We talk about the variance. Some of these is like handling by whole label evaluation. For example, you can see Sare AE and Sare E, you can put both strokes. That would be on the second level domain. We will not talk about this. We talk only on the Top-Level Domain now and some of the characters, Sara, we have to ka it out of the scope of these proposals.

So these are just to get the ideas that what is integration, what is the Thai label, the Generation Panel have to deal with. So we have 14 members and coming from linguistic technicals and we also include teams and serial. And so the major issue is that we have to think about how we institutionalize it. It is a kind of challenges we are facing because it is not only in at the Top-Level Domain we see the potential is that we need to go to the second. The second means the left side of the dot. The local parts. That will be more complex. That I do see.

We met with Khmer Lao first time in Marrakech and had a discussion. We do see that there are no strings that will be potential overlap with the two. So we work together.

The progress of Thai is already passes the public comment just closed. And we moved to update the root zone within two months. And what I would like to share is that it is difficult to start, but it is a local context that needs to be addressed for the future because not to mention when we start to work on this, we do see the potential from the angle of the risk of cybersecurity threat. And from the work that is done, we already are identifying 200, 300 websites at the second level domain that already open. And the potential problems of confusion for the end users is already exists now. And then we think that we need to move ahead on the second level soon to start working in

collaboration with Laos and Khmer and Thai, how we come up with
the technical aspect.
I did not expect you to understand all what I said because the
technical nature of this is very complex. But it is the issues
you need to start. The first part is more important than
sitting there. There is a lot of work to be done. I think I
also would like to take time to say thanks to the Thai
organisers. A lot of them in this room. Nobody is mandated to
do this, but we all share the same view that the Internet, the
outreach to us already. It is us who need to form and work
together. Thank you.
>> JIA-RONG LOW: Thank you, Wanawit. So my two take aways also
is just the first is that there is a lot of local work that is
required. And you can see every script has its own unique
features. And in it it has its own variance. There will be
challenges when you want to put them up as a domain name.
That's one pace.
You can think of Thai script, so we just get the Thai people
involved. But then actually there is also the overlap with
other scripts. For example, like Japanese script also. There
is overlap in the scripts with other communities.
Then when you want to put it up as a global infrastructure, then
you think of how to coordinate with the other communities as
well. So this is an important piece of work.
And now we are only looking at 28 scripts within ICANN. And we
are looking at more and more people coming to us to ask, oh, I
want my script to be available as well. And that requires work
and collaboration from you guys to help us to do that. So those
are a couple of my own take aways.
Now we move on to the next segment for Edmon to talk a little
bit more in relation. Earlier he covered some points. Like I
mentioned, please do bear with us. For the newcomers in the
room.
Edmon will cover about universal acceptance and its challenges
and I hand over to Edmon, please.
>> EDMON CHUNG: Thank you, Jia-Rong. This is Edmon Chung here.
Starting off, we talked a lot about the policy challenges.
Actually some of the technical challenges. But I guess it is
really where the rubber hits the road that that matters. This
is what universal acceptance is about.
Universal acceptance seems like motherhood, apple pie stuff, but
really, what it is is that domain names and email addresses,
them being able to be used across all the systems around the
Internet. I'm going to talk a little bit more about that. But
especially the work of the UASG, the Universal Acceptance
Steering Group. Those of you who were here earlier in the
previous session, we talked a little bit about the UASG as part

of ICANN. Actually I want to moderate that a little bit. It is started from the ICANN community and ICANN is providing some funding support to it. So the question about whether, why isn't ICANN doing more about this? I think that's still valid. I think ICANN is trying to do something about it, much better than many years ago.

But I think ICANN can still do more about it. Also before I jump into here, what is interesting about this topic is that the changes required for most systems to accept IDNs or Internationalized Domain Names and email address is actually not that difficult. What is difficult is that, think about it. Every single piece of water on the Internet deals with domain names or email addresses in some way, shape, or form. Whether it is putting it in the database or displaying it for you. No piece of software actually that is useful on the Internet can be completely immune from dealing with email addresses or domain names.

That is why it is complicated. And earlier somebody asked about what ICANN is actually doing. Is the ICANN systems themselves, IDN compliant or universal acceptance compliant? Well, I can tell you that they have been working very hard on it. But this is a little story I like to tell.

Two years ago when we started down this process, the CIO of ICANN came out and said yes, we are working on this and we are going to be done in nine months. Very strong. Nine months, we're going to be complete.

Half a year later they came back and said we are not going to be done at least for another two years. This is the nature of it. The reason why suddenly it became so difficult is not because changing the software is difficult. It's because there are software that you can change directly yourself. There is also out-sourced or off the shelf software. Then their integration and their changes become much more complicated.

And, therefore, one of the things about the UASG and this UA effort is to set this into the roadmaps of developers and of corporations and governments. This is really the message that we want to send out. This is going to be, the change itself technically is not that difficult, but the implications are broad and you'll have to change a lot of it.

One thing about ICANN, I'm very surprised right now with the latest statistics, they are doing very well. They are 39 percent compliant with the universal acceptance. That's great. What is surprising is that they split out off the shelf, other people's software and their own software. And we see 46 percent of the off the shelf and other people's software is now ready. Only 33 percent that ICANN actually can control is compliant. I

don't know why that is, but that's something we need to tell
ICANN about as well.
This is all about drinking our own Koolaid. What does universal
acceptance really mean for people to come back to this? It is
really about domain names and email addresses. There are
different types of domain names using different languages and
the length of the domain names have changed over time. We want
the Internet to accept them just the same.
Again, going back to this analogy with web accessibility. There
are people who want to access the web in their own way and this
is a technology that the whole web needs to be, to deploy in
order for it to work. So in the past, the developers, why we
create this problem. In the past a lot of software developers
imagined the world of the Internet with domain names as just
.com, .org, .JP, a few top level domains. But that has changed.
It has evolved. A lot more domain names are in place, I think
Jia-Rong mentioned.
The assumptions that software developers did in the past were
valid, is no longer valid. In the past a lot of the software
developers believed that Top-Level Domains can be no longer than
three characters, for example, because .org, .com is three
characters and .JP is two characters. They can never be more
than three characters. My software is short, great, it works.
It no longer works because there are domain names that are
longer than that.
That's why it needs to be changed. Email addresses in different
languages. Again, spam filters may have considered, created
assumptions that if the male address is in some weird character,
we are going to block this. This looks very suspicious. It
looks like spam.
That is no longer correct. Those assumptions have changed. And
in terms of universal acceptance, that is what we are talking
about. Therefore, it is not just the email systems themselves.
It is not just the domain name systems themselves nor even just
your browsers or email clients. It is about every single
database that is keeping, storing or processing email addresses
and domain names. Every piece of that software across the
Internet. Think about it, millions of software. And,
therefore, that is the reason why we need to tell people about
it. And to become ready.
Also this tells us that we are not going to be ready in a very
short time. However, we hope to keep pushing this until we hit
a critical mass. I think that is the direction that we are
taking. That is what the universal acceptance steering group is
about. And one of the reasons why we are focusing on email
addresses and especially internationalised email addresses.
Think about it. If your systems are capable of handling

Internationalized Domain Names, that means you can handle
different domain names and handle the new types of domain names
and email addresses.
It is not that just because multilingual email addresses are so
very important. It is because dealing with this and solving
this issue will solve all the other issues for Internationalized
Domain Names and longer domain names themselves. That's the
reason why we are focusing on it.
What do we really mean? One of the things that the UASG has
been focusing on in the last two years of our existence is to
define the problem so software engineers around the world can
tackle it on a methodical way. We've identified five key areas:
To accept the IDNs and EAIs, the Internationalized Domain Names
and multilingual email addresses to validate them or update or
change your mechanism. It will validate whether it is a valid
domain or email address. Those need to be considered.
How you store it. Is your database able to, are the fields of
your database able to hold the domain names and email addresses?
The processing of it. You know, you are processing the payment,
for example. Can your payment processing handle an email
address that is in native language? Of course, the display of
it so that the end user can see it properly.
And right now the UASG has been working on the last two years,
we've worked very hard on a set of documents. You can check it
out at UASG.tech. We have the first set of we think very solid
documents but they are living documents. Your comments and
feedback is very important as well.
Armed with these documents, we are going out and hitting our
target audience. They are the developers, the Directors, and
the influencers. Basically the doers, the influencers are the
decision makers. These are the first group of people that we're
focusing on and telling them that hey, the Internet has changed
and you need to upgrade your system. And so it comes back to
really why bother? Who cares about this? We have been talking
about this for so long.
I think one of the key aspects is that it really enables, it is
an enabling platform. Domain names and email addresses are the
Foundation of our Internet and how we communicate on the
Internet.
You can think about mobile apps, but every mobile app behind it
has to be connected with some domain name. That is, you know,
just the fact of life today. And that is why we need to address
this as a cultural and diversity matter.
And this is not a new feature. You know, if we tell the world
that this is a new feature that you can sell to the world for
extra revenue, that is probably not going to work. It is about
complying with the upgraded standard. The Internet has

upgraded. It is now for you to upgrade your net and upgrade
your system.
This is all about consumer trust as well because when your
customer comes knocking on your door and they are not able to
use their own email address or domain names, then you start to
have a problem. And that again, as I was saying, then the time
for you to complete that process is going to be longer than you
think. This is the reason why.
And going back to the market and ultimately it has to be the
market that drives the adoption. What key things. This is --
businesses, local businesses especially, they are known in their
local language names. If they are not able to express their
local language names in their email addresses and domain names,
that is a problem. There is a reason why. I think my
colleagues Hiro and Pensri will talk about the local here. You
think about the search engine replaces the domain name. You can
say that people are not using their own native language domain
names but they are actively typing in domain names in their own
search results, keywords in their own native language.
I see that we have.
(Audio cutting out.)
>> EDMON CHUNG: We have a number of newcomers here. Be patient
with us. I'll wrap it up quickly.
Things are changing. We have, the technology is changing and
today maybe it is harder to type in, you know -- not today.
Yesterday maybe it was harder to type in your own native
language in your keyboard, but with audio input, with voice
input it will become much easier and going to feel so very
strange for a Chinese or Thai person now to talk to their phone
in English, right? This is something that I think is going to
change. It is going to make this technology much more useful
and demanded for the user. But as the infrastructure provider,
we have to make sure that the systems are ready.
And as we move beyond that into the Internet of Things into the
future, even more strange if you start talking to your phone or
fridge in English. If you are in Thai or Japan, you would be
talking to your phone, and talking to your fridge in your own
language, right? That's where internationalised domain names
and others are important.
And to this audience, and to a lot of governments around the
world, this is also about sustainable development. How IDNs are
related, there are actually a number of Sustainable Development
Goals that are related to Internationalized Domain Names and
email addresses, including a number of infrastructure
development, a number of different goals. Actually they are
talking about upgrading the infrastructure, upgrading the
technical infrastructure around the infrastructure

sustainability, Internationalized Domain Names and
internationalized email addresses are important for the
development.
Also cultural diversity, maintaining social and environmental
development and cultural diversity and heritage and a number of
the sustainable development goals are directly relevant to that.
But ultimately as I wrap up, domain names and email addresses
are about identities that connect with people. And that is,
people know other people in their own native language names.
That is why it is important.
As from DotAsia ourselves, in order to connect with people, in
fact to help push both the Sustainable Development Goals and
IDNs we have helped new help, this is Ajitora, the tiger who
helps us. It helps us connect with kids and other people to
tell them about the Sustainable Development Goals as well as
IDNs. This is Aji. And this is the reason why beyond going to
sustainable development conferences, Aji also goes to the UASG
conferences and helps us tell the younger generation about their
opportunity and ability to act and use their native language on
the domain names and email addresses. Thank you.
>> JIA-RONG LOW: Thank you, Edmon.
Okay. We will now go and touch on some local examples, like
from Japan and Thailand, about how they try to promote
Internationalized Domain Names. So I hand it over next to Hiro.
>> HIROFUMI HOTTA: Yes. I need some help from the tech to
start showing the slides.
By the way, what is the local language for Aji?
>> Asian.
>> HIROFUMI HOTTA: Okay, I'll share with you the experience in
Japan about the IDNs. Essentially I have three slides here. So
this is IDN.JP registration service. Under.JP we started the
registration service in 2001. We have more than 16 years
experience now. And we introduced as a second level domain
registration with ascii and IDN at the same time. And it is
only Japanese scripts, as I said. It is possibly mixed with
ascii in this case.
And in 2012, we introduced IDN.prefecturename.JP. For example,
myname.Tokyo.jp and ascii and third level domain name are the
same.
And in 2014 Japanese prefecture name such as Hokkaido and others
in kanji became available as prefecture names in 2014. Almost
all the strings can be written in Japanese case.
And this is a graph. This shows the number of registrations of
IDN. As I said, we started the registration of Japanese domain
name IDN in 2001. And of course it grew steeply at the first
phase. But the number decreases for around four years. And
after that it is steeply grew again. When in the ICANN meeting

the Internet explorer 7 mentioned in the IDN in IE7, public
mention in ICANN meeting.
And after that, around 100,000, more than 100,000 but it is
slightly decreased gradually. Okay.
And the green arrows that are our project to promote the IDNs.
For example, our guidelines for quick cover in 2007. We
provided IDN enabled plug in to Internet Explorer from 2003 and
we provided IDN enabling library toolkit, which is a software, a
piece of software to enable, for example, the web browsers and
email software. We provided to the public. And the rid one is
the JPRS and so IDN promotion in general, I think the IDN
environment and Internet users and IDN registrations, these
three are the elements to grow the IDN usage.
So they are a chicken and egg problem. I don't know when we
have three elements, mutually freeze one another. I don't know
how to say chicken and egg and something. Because there are
three.
And we have feedback. When we see the slight decrease of the
number. However, as we have said previously in this session,
registrations and potential demands are rapidly growing maybe.
For example, IDNs and ccTLDs, I think .Thai, right, and .TH.
IDN gTLDs, there are many now. The demands are growing now, we
see.
For example, in Japan for, to promote the registrations, we set
up domain name price of IDNs to be half priced of ascii domain
names. To promote the IDNs. It is cheaper. IDN is cheaper
than ascii.
For example, we, the JPRS, the Domain Name Registry put up
websites with only IDNs with no ascii equivalent domain name.
So we redirected the IDNs website to ascii website. So if we
want to use the website, the user must type in the IDN. So it
is kind of an experimental case, but we did that. So we
registered 6,000 IDNs with Japanese registration names. And the
website introduces the information around the registration.
And some Internet users come to browse the website, such
websites with, of course, only through IDNs.
And here the numbers in domain names and IDN usage, maybe in the
previous session they asked about the statistics about the IDNs.
At this moment we have 8 percent of IDN registrations among all
the domain name registrations under.JP. For example, 11 years
ago there was 14 percent registrations are IDNs. So it ...
(Audio cutting out.)
So we checked the domain name access traffic statistics we
checked that with the number of queries. And we see that in
2005 only 1,500 IDNs were accessed, but in 2016 30,000 IDNs are
accessed. As I said almost 110,000 IDNs, so 30,000 is just 30
percent or something. But it grew. And usage of IDNs, the

domain name lookup, not the domain number, how many lookups are
going to IDN, for example, websites. We checked that. In 2005
it was just 0.01 percent of lookup was to the IDNs. Of all the
lookups.
And 2016, it grew to 0.2 percent. Thirty times, although it is
a small number but I think it is kind of a silver lining. Thank
you.
>> JIA-RONG LOW: Thank you, Hiro. Some interesting stats. We
have Pensri to share the Thai experience and then we will have
discussion. We need some help with the slides here.
>> PENSRI ARUNWATANAMONGKOL: Hello, everybody. I hope that
some of you have attended the previous session. And some of you
are new. I mean, just coming to this session. So some of my
slides will be covered by my colleague.
Let me give you some figures of Thailand. I know that the
previous session said about Internet penetration rate is like 39
percent while the number of Internet users, the commissions say
that we have 43.5 million. You may have questioned why the
number is up like that.
(Audio cutting out.)
>> PENSRI ARUNWATANAMONGKOL: In Thailand, people may have more
than one mobile number. That is why the number of NGC is over
one to one.
From the -- we have like 3.5000.
And we have 18.0 of .Thai which is IDN in Thai language. So you
can see that we have more than 25 percent of domain in IDN.
Our system, our registration we give Thai domain for free. If
you are registering .TH, we will get one domain machine with
.Thai.
So we are talking about EAI because it is the application of
IDN. So beyond the web email is the another communication to
know that using or utilising IDN.
So as of June we have like 845 email addresses in Thai, but
since up to yesterday the number increased to like 1,000. So
this is the THNIC's Foundation focus. As the Internet
infrastructure provider, we think that the domain name and email
address, it is for all. We try to promote the content through
the IDN and we encourage that every provider provide the
universal access for all. That means we shouldn't think only
about what is the number of Internet penetration but we need to
think about the people that has been left behind like people
that they don't know, they never learned about English language.
They cannot type English language. So they can use only Thai.
So we should focus on that one too.
So this is the transliteration problem. So we talk about the
language barrier, but this one will show you why we need IDN.
So please let me introduce you to Khun Kai. Kai Kai Kai Kai.

(Video played in Thai language.)
>> PENSRI ARUNWATANAMONGKOL: Please, bring my slides back.
Okay, so this is the timeline of .TH and .Thai. This has been
dedicated since 1988 and we launched the IDN.TH in 2004. Like
Edmon said the IDN has been introduced since like 1999 or 2000,
right?
So we start studying the IDN and provider service and the .TH
since 2004 and we since ICANN has the ccTLD in IDN, we joined
that and we got .Thai in 2010 so we can provide the .Thai
registration in 2011. And early this year we launched the Thai
EAI service. And we promote, I mean, we have a lot of activity
to promote IDN and EAI. As I said, we think that is part of the
IDN utilization. We are focusing on Thai EAI. This is some of
the examples of Thai IDN with local content. We are focusing on
the local content from the district administrative organisation
in Thailand. Like also the tourism authority office. As some
of you said that currently we are using the search engine, but
if you search in local language and the result displays the
domain name in local or IDN domain name. So the user
tentatively liked to click on the one that matched that search
in local language.
As I said, we provide EAI for Thai people. We also provide EAI
for domain name registration in.at the end of the day or IDN of
Thailand. We also provide the EAI service under con.Thai for
Thai people that doesn't own the domain name. So they can
communicate.
So we have like, as of June we have 565 accounts, but until
yesterday the number raise up to 800 now. So we have the active
users about 16 percent. Our system, registration is UA
complain, that means that IDN and EAI are supported. Without
it, a lot of, there are still some issues with EAI which already
this is in session and we think that we need to do reach out to
more stakeholders like the users and service providers so that
they can work together or have interoperability between the
email provider. Some of you think that you might not, we might
not need email anymore, but we are the infrastructure provider.
We should not limit the creativity of users. They may not know
what can be done currently, but they might if they know the
technology. They might think about something that will compete
with others, with the existing one.
So we should educate and empower users and we believe the same
as CNNIC that the EAI can be the cyber identity for the digital
economy. Thank you.
>> JIA-RONG LOW: Thank you.
Let's take the next 20 minutes for discussion and I just want to
seed one question out to everyone. And people can comment at
any time. If you have any questions also, feel free to raise.

But the key question I want to raise is that there are different views regarding whether IDNs are useful or whether there is a market for it.
Really, I think for our region there is, people see the need. And whether the market itself will go very far with it, we are not sure. But we do want to see, and it seems from the panel that this is something that we should have at the minimum enabled. So one Q3 question is really for us to discuss in this group how we as a region can work to address these issues about awareness and usage.
I seed this to the audience first. But the participants can come and raise any questions also and we can discuss. Thank you. Go ahead, please.
(Static on the line. No audible question.)
>> AUDIENCE: Actually, I am not actually -- well, I am not really against the IDN or EAI at all. Don't confuse that. I really like to see the IDN and EAI successfully, but I mean from the last session to this session, I just try to figure out what is the best way to make it happen. Workable. And by now I think no matter the panel here or the panel last session, you all is ccTLD or gTLD operator. You continue to using your way to push that happen. But did you really try to understand the people, the really individual what they really want and how you can approach them? They can make the IDN and EAI workable? And I was a marketing people before. If you are a marketing wrong, no matter how much effort you did, how much passion you are, it cannot be happen. So I think here we should have left more time to know the other people instead of you keep talking about the same thing again.
So I really like to ask all the people here, the audience in this session how many of you before today you know the IDN? Please raise your hand? How many of you before you already know the IDN?
And second of all, for those people you raise the hand, you know the IDN before, how many of you use the IDN? Please raise their hand again.
You see the number is getting less. I'm not talking about you. You are sitting -- you are TLD operator.
Next how many of you using the EAI, please raise your hand?
Now you see the problem. We know, you can see the people use is getting less and less. Maybe it is a better way to ask them to get on the panel to tell them why they are not going to use instead you keep telling the same story to them.
So those are the people you already know the IDN. Is anybody want to come to the microphone to tell us or tell them why you are not going to use it? Please.

>> JIA-RONG LOW: Thanks. I think that's a very good question.
We should have a few people from the participants come and share
with us, you know the IDNs is, but would you use it? Why
wouldn't you use it? Just come and share with us your thoughts,
please.
And Professor Kanchana, go to the mic and let's have a queue.
Let's gather thoughts from the participants.
>> AUDIENCE: Okay.
>> AUDIENCE: Listen to them.
>> KANCHANA KANCHANASUT: I just want to ask a different
question. For those people who are in this room, how many years
you have been using the Internet? And what is your educational
background?
Okay? So how many years? Less than five years?
>> JIA-RONG LOW: Less than five? Raise your hand. Okay, none.
>> KANCHANA KANCHANASUT: I'm trying to imply that we have more
than 50 percent of our people who are outside this community and
who are not yet been introduced to the Internet. And those
people have been obstructed because of the language problem. So
what we are doing today is not just for the people in this room.
Thank you.
>> JIA-RONG LOW: Thank you, Professor Kanchana. That's very
insightful. The reason behind the IDNs is for people who cannot
type English. If you can use access to the Internet in your own
language, that will help you a lot. In this group it might be
hard for us to understand.
Let's go to TH and form a queue. Share with us your thoughts,
please.
>> AUDIENCE: The mic is on? This is TH. And I actually
encourage my daughter to use IDN because I think a lot of young
kids in this region are using mobile phones to browse on the
Internet. If you really go to shopping site like some of the
largest Tao, Alibaba or shopping in Thailand, the URL has been
turned into something like an emoji URL. I don't know if you
have seen that kind of application of the new, you know,
communicating with your friends with emoji and it can be turned
in some sort of, more of into some form of idea. It is very
popular among young kids on the shopping site. If you get a
notification from any shopping site you can see the URL turn
into a smiley, the URL, it could be a sun, it could be something
like that. There is one, I think there is one trend coming up.
There is a Hollywood movie coming out at the end of this month.
It is called the emoji movie. And so there are, in Hollywood is
presenting some cute emojis that is very dominant in the young
kids' lives with mobile phones. We can use that kind, a movie
is a very powerful awareness tool, ways of communicating with
the general audience and the movie is coming up. I encourage

everyone to take a look at how that movie is picturing the emoji in every day life.

That will be a good idea of punch on our face because we have been in the industry long enough and we should think outside of the box. Thanks.

>> JIA-RONG LOW: Thanks, TH. Edmon wants to make a quick intervention.

>> EDMON CHUNG: Actually, in response to the emoji question first. That is a great idea. And I think personally I am very supportive of exploring that. I want to highlight one thing, though. Utilising emoji in domain names is problematic right now because the standard doesn't allow it.

What we need to do first of all is create the standards. One of the things about pushing for IDNs is making sure that everyone is standards compliant. We want them to upgrade their systems. So we don't want to create something non-complaint and get them to upgrade. That brings me to a Catch 22 problem that Quo Wei also mentioned. From Registries in the industry we have been trying to reach out to the end customers and telling them about it. They have responded.

When you look at .JP and many of them, there was an initial surge in interest, initial surge and then it dropped out. Why? Why? Because they can't use it. Because as a registrant, not the end user on the Internet, I can't set it up with my hosting. I can't set it up with male. I can't do it. That is the key problem. That is what universal acceptance is about. We are hearing from the end customers, but if we push the product and try the market to push it we are creating more problems than solving. That is why we need to push it back to what UASG right now is trying to do. Thank you.

>> JIA-RONG LOW: Thank you. So next.

>> AUDIENCE: My comment is about, we need to separate the concepts with this universal acceptance because I see a bit of contradiction. We talk about market and open market and then we talk about pushing people to use this. If it is open market and people don't want to use this, they don't. Nobody sat on panels at Facebook to say add this language to your interface, correct? Facebook as a business saw the benefit.

Nobody told people to add authentication with Facebook. Facebook said there is a big community. There is a big authentication system. Why not use that, for example?

So that is the infrastructure. Infrastructure has always been pushed by governments and others. We shouldn't combine the content which is actually the IDNs dominates and things like that, with the infrastructure.

(Audio cutting out.)

>> AUDIENCE: Having the core Internet serve IDN. It is
important to understand the scope of infrastructure because
email at least in my book doesn't fit in infrastructure. Email
is an application.
Addressing, transport with the infrastructure, DNS is
infrastructure. Email is not. We can argue that. If you add
it as a national authentication system then yes, email will also
become an infrastructure. First let's understand the boundaries
of infrastructure and see where we should push. Again, the
market, we shouldn't try to manipulate the market. If there is
no interest, there is no interest. Tomorrow, you're right, I
need to talk to my phone. There is a need and people will put
money and there will be incentive.
So if you focus back on the infrastructure, I think most is
done. Yes, there needs to be work, for example, to have more
ccTLDs on board, to have basically a bit more on that
infrastructure side, but not much in what I heard here, trying
to push people or use or even sending technology to the masses.
Again, use Google or Facebook, nobody went around and said
Facebook, I didn't see any Facebook ads, like advertising the
Facebook on the billboard. You go to FB.com and look. We
should focus on making sure that the infrastructure is properly
there. And the market will happen. If it doesn't, it doesn't.
>> AUDIENCE: I'm from India and I'm associated with Low and
APNIC. It is not a matter of convenience for us, the Internet,
but also a matter of identity. From that perspective it is not
just a technological choice. It is also a necessity from the
point of view of sever aspirational goals of people. So that is
one part.
Second part, I have an internationalised email ID which has two
non-Roman scripts on either side of the. I find it difficult to
use for many reasons. The client support is very tough, but I
persist in using it as a matter of, well, I went through a point
that it works so people can see it and more people can adopt it.
I also have a comment on the emojis, emoji-based domain names.
The community seems to be divided at this point. As Edmon says,
maybe it's the fact that there are no rules, standards. I would
urge that the technical community build these standards so that
the community, especially the young people, they want to use it
and at this point we are a barrier to them. Thank you.
>> AUDIENCE: I tried to bring another point. You know, it is
about the time for the audience, not the panelists. So first of
all, I think even here we are in the (indiscernible).
You can see very few people using the IDN or EAIs. And you are
talking about oh, we are looking for another group. Those
people don't know the English. There is potential target. They
are not here. First of all.

Second of all, to be honest, for those people that don't use the
computer. They use the mobile phone. And are you sure they
want to use the EAI? On the mobile phone? Or they want to be
using other tools or applications to do it? So if you want to
promote the IDN or EAI, maybe you need to use a different
strategy and talking to them for those people not in this
community.
The number three I would like to point out, you keep talking
about oh, we are looking for Gmail. We are looking for
Microsoft to help us. You know, Gmail is dominating us. Do you
want to dominate by Google? Why don't you by yourself. You
made the Google, you want a Google Gmail making the EAI for you.
You make Google more dominant, everything. Is that the right
idea? I fully don't agree. It is crazy. We made the Google
bigger and bigger and bigger.
So do it by yourself.
>> JIA-RONG LOW: Thanks, interesting points. Let's go to
Hailey, last comment.
>> EDMON CHUNG: One note on that. We are trying to make Google
interoperable. That is different from making them better,
making --
(Overlapping speakers.)
>> AUDIENCE: You are making them dominant, come on.
(Laughter.)
>> AUDIENCE: This is Hailey. I'm a Fellow. In response to the
previous question about why we don't use it, why we know it. I
know there are different language of the domain, but we don't
know what exactly, what they make -- what kind of domain name
and different language are available now. Like when you see the
name card, or when you see like the promotion, advertisement, no
one used their domain names in different language. That's the
problem that we can't get at today. So to general level, like
for example my mom when I asked them to search for the Internet,
it is so hard for me to tell them the English. Yeah, Google,
they may not know how to spell it. It may be good to use the
local language.
I think like some of the people have mentioned that it is not
like, it is not for the people in this industry or not for the
general public. It might be focused like the target group,
might be the minority or the people with a small group. But are
we talking about helping the minority? Or are we protecting the
will language? Or pushing like, enabling the local language to
like step in? For me it is more on diversity. Why we have to
use English at the website. Why we can't use like our local
language.
And the second point is I think here, like who should play the
role in this whole process? Like is it us the end users? When

we don't know there is something, like this product or this
platform, how can we promote? How can we use it or demand it?
I want to know why Thailand government is initiating or playing
an important role in the whole process. I think it will be good
for us to take a look at setting an example as well.
>> JIA-RONG LOW: Thank you, okay. As the moderator, we are now
at the end of this session. But we have two more comments. I
know that we should answer the questions also. Should we close
the queue here and finish up the discussion? Okay.
So Pensri, hold on to the question regarding Thailand and we'll
take the two comments from the audience, please.
>> AUDIENCE: Hello. Is this on? I'm from Afghanistan, based
in Malaysia and one of the participants as well for this Forum.
So actually with regard to the comments that were made by Hailey
just now, also like I was going along the same line. Why we
shouldn't use EAI for our local. I mean then I'm thinking from
another perspective. We are going towards globalisation, right.
For me, I speak Persian. I use that. But this is easier for
me. I don't know English but still I can use.com and my email
address and everything. Even those I didn't find it difficult
when I didn't know English.
Wouldn't this go against, number one, the spirit of
globalisation? Because English is somehow becoming dominant
everywhere and everybody is getting familiar with it.
Number two, wouldn't it create some confusion, imagine my, I'm
having an email address that has Arabic character. So if I want
to write that like send a text to my friend that this is my
email address or they want to write it somewhere, wouldn't it
create confusion again? I'm like they get too familiar, they
have to download, I don't know, Arabic keyboard in order to
write that? So I think these are concerns that I wanted to
point out. Thank you very much.
(Some applause.)
>> AUDIENCE: Hello, I'm from China. I would like to introduce
what is our practice in my organisation. I associate with the
organisation that runs to Chinese gTLDs, so those two gTLDs are
closed to TLD. So are those written.
(Audio cutting out.)
>> AUDIENCE: Set to the government or Non-Governmental
Organisation, so it's easier to push forward those policies.
So relatively speaking I think right now we are doing a good job
to make those Chinese gTLDs more available or raise awareness to
our customers, but because we ask, because the government issues
some documents and they force them to do so. But at the same
time I have to point out that from the end user perspective, it
is not that widely used. One of the reasons is that the
Internet user, there is still a lack of awareness that they have

this kind of access to use the Chinese domain names. The other side, we do not do enough work to reach to the end users. So I think there is still a lot of work to do. And also from the technical point of view, I personally use EAI of the Chinese email. And sometimes there is a technical problems. Like there's, the display is not correct. It is not Chinese character at all. So there are still some technical barriers that we need to overcome.

So this is the experience that I have that I would like to share. Thank you.

>> JIA-RONG LOW: Thank you. Let's just do a closing on this side.

>> (Speaker away from microphone.)

>> JIA-RONG LOW: There is the question from Hailey regarding like who should play the role and she specifically asked about the Thai government.

>> WANAWIT AHKUPUTRA: I will make it very brief. Two aspects why Thai government is leading this whole effort. I am sort of a board member of student loans. We talk about 10 million students, plus the current, which means the parents, two each loan application. We are dealing with people in our country that don't even know the English characters.

That creates huge problems. The currently ones are the ones who signed the are, on the Internet, the Internet cafe stuff. They have to pay the money. So we can leave it at that, forget about. It costs the government 10 million U.S. dollars for holding a stupid piece of paper. It is $10 million. Is that going to go to the students? Or we just keep working on this stupid paperworks? And how to reach that identities of the people. It is still based on something they don't know and that is a problem. That's why we addressed that issue. It is so important to coming up with a proper, that we look beyond the EAI. People only use a mobile, but they can not use for the contracts, for the services of governments. So the world we are living with, we still get stuck with that identity based on the EAI. That's how we start, that angle.

The other angle is compliance of the law which already mentioned that the entire government is based on the Thai character. One day we have to make a decision that the entire Thai government, the court and the emails or the numbering system have to convert to the English character? So I think that over my dead body, even if I'm still living here. And that is the thing that the government tries to reach the show stopper point. Okay, let's teach 50 million people to speak English and understand. Or that is the situation by the government. So simple. That is my answer.

>> JIA-RONG LOW: Thank you. I think your response also answers our friend from Afghanistan regarding will it create confusion? It might, but it helps to solve certain local problems as well. I have to close, but thank you so much, the panelists and everyone. Give you a round of applause. Thank you also participants for your comments and useful debate and thoughts there. So thank you very much. Have a good lunch.
(Applause.)
(The session concluded at 12:44 p.m. local time.)
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