## 20130918\_WHOIS\_IRD\_ID817521.ZIP

Steve Sheng: Let's get ourselves started. It's 6 minutes past the hour. And I think let me do a quick roll call

from here. We have Zheng Wang on the line, we have Jody, we have [Naoki], we have Dennis Tan, we have Jim Galvin, and we have Takao Suzuki. So we are missing Sarmad who is trying to dial in. I think [Edmund] sent his apologies to me. So I think we have a good amount show up.

Okay, so I've posted an agenda on the Adobe Connect Room where we'll first do introductions and then I'll go over some background materials. And after that a discussion of -- hello, who has just

joined?

Sarmad Hussain: This is Sarmad.

Steve Sheng: Hi, Sarmad, how are you? We're just starting. Then we're going to discuss some administrative

issues. Do people have any other business they want to raise or add?

Jim Galvin: Steve, this is Jim. I apologize but did you mention Nishi's name?

Steve Sheng: Is he on the line? I haven't heard him, that's why he was not announced. So I don't --

Jim Galvin: Okay, no, you were taking about who was not present, so yeah, okay.

Steve Sheng: Yeah, so Nishi was not here.

Jim Galvin: All right, thank you.

Steve Sheng: Thank you, Jim, for that. Any other business people want to suggest? Okay, now let's proceed

with the introductions. I think I sent out some bios ahead of this meeting, so I think on the call I would like still to give people an opportunity to briefly introduce yourself. So if you could introduce your affiliation, the work that you are doing, and your past experience on

internationalized registration data, that will be very helpful. Keep it short, one to two minutes.

Let's start with Zheng. Zheng Wang, please go ahead.

Zheng Wang: Hello, everyone. I'm Zheng Wang from [CCNIC]. I participate the design and construction of

CCNIC's DDRD system for the new gTLD applications. CCNIC has applied for 2 IBS streams in

the ICANN new gTLD program. I also work as research director in the area of internet

(inaudible). I'd like to work jointly with you and hope to contribute much to the working group.

Thank you.

Steve Sheng: Thank you, Zheng. Jody?

Jody Kolker: Hi. I started working at Go Daddy 12 years ago designing and programming their systems for

registrations for high volume and high scalability. I've been working on the WHOIS it seems like the whole time in order to either make sure that our WHOIS 43 is compatible with everyone else's

planned and to make sure it's scalable enough to be able to handle the number of WHOIS requests that come into Go Daddy on a daily basis. I moved from that to an architecture position in the last year, helping out with the registration path of Go Daddy and architecture of the registration systems. And I'm very interested in what WHOIS, how WHOIS can be modified for internationalized language.

Steve Sheng:

Thank you, Jody. Sorry, I was just going down the list according to the order that was announced. Maybe I think it's helpful to do this by expertise groups. So I think what we are introducing now is registry registrar operations. Dennis, can you introduce yourself?

Dennis Tan:

Yes, hi, hello. My name is Dennis Tan. I work for VeriSign. My role is product management for international domain names. It goes from very basic requirements to provision and reinstall IDNs for the whole system. That basically means my role as far as the internet internationalization.

Steve Sheng:

Thank you, Dennis. Naoki? Naoki from JPRS?

Naoki Kambe:

Yes, I am Naoki [Kambe] from JPRS. I experience operation of (inaudible) service and I now belong to part of the division. Then I am implementing new gTLD WHOIS service. And I also design administration and data modem. I am pleased joining this working group. Thank you.

Steve Sheng:

Thank you, Naoki. I think in the registrar/registry operations we have existing TLDs, we have new TLDs, we have registrars, and we also have ccTLDs. So quite a breadth of expertise in the area. Now moving onto policy, Jim? Jim, I know you have expertise in many areas, I just put you in this policy. I hope you're okay with that. Jim, go ahead.

Jim Galvin:

Sure, that's fine Steve. So I'm Jim Galvin. I'm Director of Strategic Relationships and Technical Standards at Afilias. With respect to the policy role being highlighted here, I'm actually vice chair of the SSAC, too, and I've been very deeply involved in all WHOIS related activities that SSAC has undertaken, all of the various publications that we've made along the way. And as Steve mentioned, as Afilias, we're a registry operator, so I have a lot of experience in understanding with respect to our WHOIS and WHOIS related operations. So I hope to be helpful in that respect, too. Thank you.

Steve Sheng:

Thank you, Jim. I think Jim is also in the SSAC gNSO working group, internationalized registration data, which is a document that this working group will consider taking input. He is the co-chair of that, just to add to that. Edmund sent his apologies, so next on the line we have Sarmad. Sarmad, go ahead. Unicode and linguistic.

Sarmad Hussain:

Thanks, Steve. Hi, everybody. So I'm a professor of computer science. My main area of research is speech and language processing, so I basically have been doing the modeling of languages using computers, doing the radio stuff including dialogue systems and emission calculation and translations. So I actually have a technical background, but I've done my doctoral degrees in linguistics, so sort of a mixed bag academically as well. And I have been actually fairly active in this area for some time as I have been leading the IDN ccTLD initiative in Pakistan and I've been actually working active in IDN/ccTLDs in ICANN as well. Also with SSAC at ICANN and also was a member of WHOIS review team on (inaudible). Thank you.

Steve Sheng:

Thank you, Sarmad. Next, moving onto internationalization and localization applications, Takao Suzuki.

Takao Suzuki:

Hello, I'm Takao Suzuki from Go Daddy. I joined Go Daddy in May of this year, so I'm very new. I'm international product manager for domains at Go Daddy. Before that I was with Microsoft and I was there for 18 years. Pretty much same role except that I worked on the various internet products for internationalization and localization. Thank you.

Steve Sheng:

Thank you, Takao. I should note that at Microsoft you worked on Internet Explorer, Windows, Windows Live, the internationalization aspect of that. Thank you for that. Are there any other people on the line that have not introduced themselves? Anybody else? I hear that maybe people joined after we started. So let me briefly introduce myself as well. My name is Steve Sheng. I am policy staff at ICANN. In my role I support policy development and also support the security and stability advisory committee. I'm a staff kind of liaison to, on the ICANN side, for this expert working group. We'll mention shortly in the administrative issues that we need to also elect a working group chair on this. So that's a quick introduction for everyone.

Next, moving on some background material. So I thought before we start our work, it's helpful and useful to review why we are here, what we are tasked to do, what's our relationship of this working group with other efforts within ICANN. So I prepared a presentation on this. If you are in the Adobe Connect Room, I sent out an email, Sarmad and others who are joining later, I sent out an Adobe Connect link that has the presentation. I will also share the presentation after this call.

So we start with the WHOIS review team recommendations. Sarmad mentioned that he was a member of the WHOIS review team. In 2012, when the WHOIS review team delivered its final report to ICANN, it contained 3 recommendations on internationalized domains. Those are recommendations 12 to 14. Specifically, recommendation 12 calls ICANN to task a working group within 6 months of publication of this report to determine the appropriate internationalized domain name registration data requirements and evaluate available solutions including solutions being implemented at ccTLDs. So that's kind of a highlight of recommendation 12.

In recommendation 12, the WHOIS review team also calls the data requirement should apply to all new gTLDs and the working group should consider ways to encourage consistency of approach across the gTLDs and the ccTLDs space. The working group should report within a year of being tasked.

Recommendation 13 says the requirement and the final data model, including any requirements for the translation of the registration data, should be incorporated into the relevant registrar and registry agreements. So essentially what the WHOIS review team is tasked with is to define the requirements, make sure those requirements should apply to gTLD and encourage consistency for ccTLD space. And then once the requirements and the data model will be incorporated into the relevant registrar and registry agreements. So that's kind of our mandate and what will come when the working group delivers its report.

Recommendation 14 of the WHOIS review team calls for metrics to be developed to maintain and measure the accuracy of internationalized registration data with clear defined compliance methods and targets. So we are not so much focusing on the recommendation 14 because that really largely depends on the requirements. Without requirement, it's very difficult to develop metrics, so that will not be the focus of this working group.

So in 2012 when the ICANN board took action by passing a resolution, it directed the CEO to have staff perform the following five tasks. Very similar to the working group, the WHOIS review team, asked. So there are links in there so I will not belabor this.

So then the working group deliverables is first to determine the requirements for internationalized registration data. Second, produce a data model for the international registration data that matches the requirement. And also, I think once we note here that the working group is not starting in a vacuum, there has already been a lot of community work done in this area. Most notably, two efforts. The SSAC gNSO final report on internationalized registration data. I think this was delivered also in 2012 if I remember correctly. And also SSAC 54, the SSAC report on domain name registration data model.

We will not go into those two reports in detail today, but I think between this call and the next call it will be helpful for the expert panel to review those two reports.

So before going further, are there any questions on the history, the WHOIS review team recommendations, ICANN action and the working group deliverables? Okay. So moving on, the working group process, the working group outcome, we'll go through a public comment process to insure broad input is received. It could possibly be that I think we'll be discussing later our work plan. One way to do this is the working group could issue an initial report, have some public consultation, and based on that produce a final report. And then additional public consultation. The report will form the basis for further policy development and/or contractual discussions.

So in the ICANN sphere, this would -- if you want these requirements to be binding, all registries and registrars, this needs to go through a policy development process in the generic name supporting organization, we call it a PDP. I think such efforts are necessary and needed. And the WHOIS review team seems to be recommending contractual language be put into place, so that's also an area we are considering.

Finally, there are a couple of other efforts going on at ICANN in this WHOIS. I just want to mention those. The first effort is called the expert working group on the next generation directory services, I got the title wrong here. The expert group was tasked to find a path forward for next generation registration data services. It has published an initial report. In that report, the expert working group confirmed that its proposed model needs to accommodate the display of registration data in multiple language scripts and character sets. And need additional experts to define the requirements. So it seems that this work is relevant regardless of the expert working group outcome. Because those requirements need to be defined whether we are using today's model or we're moving onto a new model, which is uncertain at this point. So it's just I think this work will compliment, is necessary to stand on its own.

The second one I think is more relevant. It's the cNSO policy development process on the translation and transliteration of contact information. So on June 13th, the gNSO initiated this PDP. I think the working group has just finished its chartering and will be submitted to the gNSO council. The questions that PDP seeks to answer are two. First, whether it's desirable to translate contact information to a single common language or transliterate to a single common script. And second, if that's desirable, who should decide, really -- and who should bear the burden of the cost? So I think those are the questions that the policy working group is going to take up.

So obviously this has some, this has a close relationship with this expert panel. I think the current best thinking I think is really for the working group to discuss, to debate and determine, is whether the working group will address the issues raised in the PDP. Our current thinking, staff's current recommendation is not -- we will let the PDP finish, but we will create placeholders for it if necessary.

Staff also thinks it's useful for the two groups to know what each other are doing. So we are still thinking what to do. I mean if there are suggestions on how these two groups could coordinate a bit, that would be very helpful.

So those are kind of the background on why we are here, what we are tasked to do. What our relationship with other related efforts at ICANN. So that's kind of a quick overview. Are there any questions on what I've just presented?

Jim Galvin: This is Jim. I have couple of questions.

Steve Sheng: Go ahead, Jim.

Jim Galvin: So, Steve, I guess you're the staff support for this particular working group, correct?

Steve Sheng: Yes. There may be other staff support the working group as well. But currently, yes.

Jim Galvin: So is there overlap in the support between this working group and the translation and

transliteration working group?

Steve Sheng: There is not, currently there is no overlap.

Jim Galvin: Okay, so I was going to ask if there would be an opportunity for -- I mean if there was some staff

overlap, it would be a nice conduit for knowing what's going on between the two groups. But absent that, might there be an opportunity for one or more people from this group and one or more people from that group to participate or listen in on each other's work? Because I do think there's a fairly direct relationship. I think that we're at least in part dependent on what's happening in that other group. That's my opinion. It would be interesting to hear what others think. That's it for

me.

Steve Sheng: Thank you, Jim, for that suggestion. What do people think of Jim's thoughts? Jim's suggestions?

Jody Kolker: I would agree. This is Jody. I would agree with that. I think that there's a lot of overlap between

two groups or it seems like there will be.

Steve Sheng: Thank you, Jody. Any others? Go ahead, Sarmad.

Sarmad Hussain: So I also agree that our work is dependent on their output. I have a question and that is, is this

working group already functional? And if it is functional, when is it slated to give its recommendations and is there for example an interim report they will be issuing which will give some details? I just wanted to know (inaudible) at certain points, it would be great if we could ask as liaison across the groups (inaudible) but maybe a couple of members would also be good. So I

just need some more feedback information on the workings of the other working group.

Steve Sheng: Yeah. Thank you, Sarmad, I will check. I think Julie Hedlund, my colleague in the policy

department, is supporting that working group. I will check the progress. The last update I have is the working group is near finishing its charter and will be issuing a call to join that working group. I think I like your idea about liaisons. I think that's in the line, along the same lines with Jim, what Jim and Jody were saying. So how about I take an action item to ask Julie these questions? The timelines, the interim reports, and then suggest to her the idea of liaisons? Does that sound like a

plan?

Sarmad Hussain: Sounds great.

Steve Sheng: Okay. Sounds good. Okay, so we are done with this part of the agenda. Discussion of work

plans. So I think this is an open topic for discussion. How does the working group want to

approach the topic? Any thoughts? And the deliverables --

Jim Galvin: So this is Jim. I have one starting question. Are we constrained in any particular way with respect

to the amount of time that we're supposed to take?

Steve Sheng: Are we constrained in the amount of time? In the amount of time it takes?

Jim Galvin: Well, meaning, are they looking for our work product in 3 months or 6 months? I mean obviously

we should move forward in a deliberate and expeditious way, but I just wanted to know if there

was any deadline that we should be aware of that's in front of us?

Steve Sheng: I think there's no hard deadline that I'm aware of. But I think it's important the WHOIS review

team in this report really highlights the urgency for this issue. So I think as soon as possible will

be a good target, but there's no hard and fast deadlines.

Jim Galvin: Thank you.

Sarmad Hussain: I also have a question, Steve, about this.

Steve Sheng: Go ahead, Sarmad. Hello, Sarmad? You might be on mute. Okay, we may come back for

Sarmad later. Any other thoughts on this? No? Hello?

Sarmad Hussain: Hi, this is Sarmad. Sorry I got off. So I think one basic question is are we moving ahead working

as a team for the registration data which is required to contract (inaudible). So is that really the simple data and then we are trying to figure out what further innovation is needed to initiate that

core data?

Steve Sheng: I would open that -- that's a very good question. What do others on the expert panel think?

Unidentified Participant: Could you repeat that, Sarmad?

Sarmad Hussain: Yes, so my question is that are we going to constrain ourselves to exactly the same core data as is

required in (inaudible) format? And then just internationalize that information? Is that where we are going to be coming from? So do we actually define core data or not? I guess that's my

question.

Jim Galvin: So this is Jim. Sarmad, if I understand your question, you're asking if we're going to talk about

what data is collected, what data elements are collected, contact information and that kind of thing. And if I've got that correct, I would say that that's the role of the expert working group I think. That it's going to have something to say about that. At least that's my first reaction to your

question. Do you agree?

Sarmad Hussain: So given the data model right now, then we obviously will not be able to wait for the PDP to come

back and finalize their recommendations for the work. So I guess what I was asking is what will be the setting points for our discussions? So do we -- so I guess you also raise a good point. So maybe one possibility is that we start with what is currently the requirement and then if we change the requirement, we can actually go back and review, something like that. Would that be

something doable? Because if we basically (inaudible) I think we cannot move ahead significantly. It may take much longer to come up with some recommendations.

Steve Sheng: Thank you, Sarmad. With respect to EWG, I can double-check. The last time, I think the last

meeting we talked about, the EWG was saying, please don't wait for us to come up with things. So the way I interpret the guidance was, we will continue unless we're told differently. But that's my thoughts. I will double-check with EWG on that. So I would agree with Jim's proposal.

[Multiple speakers]. So let me maintain a speaker queue. Who wants to talk?

Sarmad Hussain: This is Sarmad, I want to go, but I will go after Jim.

Steve Sheng: Okay. Jim? And then there was another person before Jim? No? Jim, go ahead.

Jim Galvin: Yeah, so I wanted to say thank you, Steve, but I agree I think with what Sarmad is suggesting. I

wanted to sort of suggest that we focus it in the following way. We do need a starting point and it does seem appropriate and logical I suppose that we start with what we know is there today. And we also know that EWG is working in this space, so I don't think we want to duplicate their work. But having said that, it's possible I suppose we may come across things we think we need or should be present or should have, and I don't think we should restrict ourselves to not make those suggestions if we think we need it. So we allow ourselves the opportunity to expand the data elements if we find it's necessary, but as Sarmad suggested, let's stick with what we know for right now and if EWG happens to move along quick enough to provide us with something, we'll pick

that up when it comes along. Thanks.

Steve Sheng: Thank you, Jim. Sarmad?

Sarmad Hussain: Yes, so I just wanted to say what Jim has already said. So I think I'm okay.

Steve Sheng: Sounds good. What do other expert members think on this topic? Okay, hearing none, I think this

will be reflected in the minutes. Then we can, in the next meeting, we can further discuss. But it seems like this proposal is gaining momentum and we will probably start this way. Any other

discussions on work plan?

Sarmad Hussain: This is Sarmad again. I think internationalization would have at least a couple of dimensions.

One dimension obviously is that the data elements which are already there we would want to represent them in local scripts or other scripts. And then we obviously need to look at challenges in doing that and determine how to address those issues. But another dimension obviously is this concentration (inaudible) which is going to duplicate some of the elements. But in other scripts perhaps. So we are not only looking into internationalizing the elements, data elements, but also looking into them from some other scripts. I guess the question we will probably want to ask from, maybe it's too early, but from the other working group, is whether they are going to be doing translation, transliteration, or work and whether we should keep the model generic enough that both are possible or should we make sure we restrict that to one possibility? So those are sort of

things I think we need to discuss and have some answers to also.

Steve Sheng: Thank you, Sarmad, all good questions.

Jim Galvin: Jim for the queue.

Steve Sheng: Okay, anyone else wants to join the queue? Go ahead, Jim.

Jim Galvin: I wanted to add to what Sarmad said. When he started talking about duplicating elements, it

occurred to me that an important question to ask is whether the translation and transliteration, any of that that exists, is it a one-time operation or is it something that has to be available to happen in real time as needed? And that's an important question and we should -- I think that's a question we probably want to ask of the translation and transliteration working group to see if they are

addressing that question.

Steve Sheng: Thank you, Jim. Obviously those different models have very different implications in terms of for

registry/registrars and also for the community. So that's good question. Any others? Okay, I think what I'm hearing, I'm hearing there is proposal to start with the existing data that registries and registrars provide today and look at internationalization requirements for those. And then also looking to the issue of in the area of translation and transliteration, we have, the working group has some thoughts, but there are also a lot of questions for to be answered. So I think that's kind of what I'm hearing from the conversation. What I propose is perhaps next call we continue to discussion on work plan as we find out answers to these questions as we do additional background

reading. Does that sound like a path forward?

Jim Galvin: Steve, this is Jim. I would say yes, but I suggest you phrase the question the other way in terms of

does anyone object?

Steve Sheng: Okay, all right. Does anyone object to this path forward? I'd like to hear other's thoughts. Any

thoughts, Zheng? What do you think? Do you have any input here?

Zheng Wang: I'm sorry, I lost computer connection, I can't see (inaudible).

Steve Sheng: Sure, I think -- well I'll send the slides after the call as well so we'll make sure that you see that. I

know there are some others who weren't able to view it. Okay, Dennis said, on the line, in the

Adobe, there's no objections. Jody, any thoughts on this?

Jody Kolker: I think it would be great if we started with reviewing the two documents that you had on your

previous slide to determine what our starting point would be and what's not covered by the working group. One of the things I think we want to be careful of is not getting the scope too big

that we can't solve this in a short amount of time I guess.

Steve Sheng: I think that's very useful feedback. Naoki? Takao?

Naoki Kambe: Naoki here. I'm in Jody's office this morning, so -- or this evening for someone, so we've been just

chatting, same feedback.

Steve Sheng: Okay, sounds good. Any others want to provide feedback? Okay, sounds good. So we will

continue our discussion but it seems that we are at growing consensus on this area. All right, so it's almost up to the hour. I want to spend the last 10 minutes talking about some administrative issues. One of the -- there are two things. First of all, we need to select a working group chair that will chair this working group. The -- it seems the selection process that we propose, staff proposes, those who want to become the working group chair, will put yourself, nominate, self-

nominate yourself. And then we will do an election if needed in the next meeting. So that's kind

of the proposal. Just to -- what do people think of that proposal?

Unidentified Participant: Sounds good.

Steve Sheng: Okay. So please nominate yourself. The chair will be leading the group and will be working

closely with the staff on this topic. Determine regular teleconference call schedules. We did -- we have a very wide geographical span for participation and this is the time that people think, okay, first of all, two questions. Should we hold the meeting biweekly or weekly? So those are two choices. And second is, what time? Do we want to rotate meeting times to fit different geographical regions or should we set the same time for meeting every time? I'd like to hear the

expert panel's thoughts on this.

Jim Galvin: So Jim for the queue.

Steve Sheng: Go ahead, Jim.

Jim Galvin: I think that initially we should meet weekly until we get a steady flow going. Also because I think

that especially as you're getting started, it will be easier to build momentum. Two weeks is a little bit too long between meetings to really get things moving and moving along. That's just my opinion And as far as when to have the call, well this time happens to be especially convenient for me, so perhaps I'm a little overly biased. I'd be more interested in hearing what those who are a bit

more inconvenienced by the time would like to do with respect to the call. Thanks.

Steve Sheng: Thank you, Jim. Any other thoughts?

Takao Suzuki: This is Takao. I'll be located in Seattle, I'm in Seattle usually, so this is 6:00 AM, but I think I'm

okay with that. And also, in terms of frequency of the schedule, we talked about the urgency of this deliverable and then we say ASAP. I'm a little concerned when we say ASAP, that could be tomorrow, that could be two years later. So if we have a bit better scope on that, that will also set the frequency of the meetings and stuff like that. So we want to come up with some guidance or

some ideas about what I think. But for the moment, we agree I think.

Steve Sheng: Okay, thank you, Takao. Very helpful. Sorry if I pronounced it wrong. I think there's an urgency

to get it done, but I think the working group needs to take time to deliberate the issues. The urgency is always not a substitute for proper deliberation. So I think the working group needs to do proper deliberation, proper discussion and however that takes, that is what it takes. Any other discussions? On the chat we have Dennis saying, I'm with Jim as far as holding the meeting weekly to start. We can adjust later. Naoki said, me too. Sarmad says this time suits him. Dennis was saying he is fine with having the meeting from 7:00 AM to 9:00 PM Eastern time.

Dennis, are you suggesting two hours? Dennis isn't on the phone, so he will be typing the response. Any other people think about meeting times and meeting frequency? So what I'm hearing is people are okay with starting up weekly to build momentum and get steady flow and after that determine whether to move it to biweekly meetings. Are there any objections to such a proposal?

Okay, I haven't heard any objections, so let's tentatively proceed with scheduling weekly meetings. Are people okay with the current time? 9:00? First of all, is there any people who cannot make it during this time?

Sarmad Hussain: Steve, this is Sarmad. So this is generally okay except next week because of this meeting

scheduled.

Steve Sheng: Oh, you mean the SSAC retreat?

Sarmad Hussain: Yes.

Steve Sheng: But the SSAC retreat is on east coast, on west coast. So this time is early. They will start at I

think 8:00 and right now it is kind of 6:00 in Los Angeles.

Sarmad Hussain: Okay.

Steve Sheng: Okay, Dennis is saying one hour meeting between 7:00 AM to 9:00 PM. Or maybe Dennis you

mean 9:00 AM? Zheng, what do you think? I think this will be a very inconvenient time for you,

so I'd like to hear your thoughts.

Zheng Wang: It's okay for me.

Steve Sheng: Do you have any preference?

Zheng Wang: I prefer this time, around this time. Maybe later is also okay.

Steve Sheng: Maybe later is okay, too? Well I think later will be very late for you. Okay, so I have not heard

any objections so far keeping this 9:00 AM time. So why don't we tentatively set 9:00 AM next week and we do it on a weekly schedule for now? Any other business people what to raise? Okay, I think it's two minutes to the top of hour. I want to thank you for joining this kickoff meeting for the expert working group. Just kind of a last reminder, because this working group is chartered under the WHOIS review team, which is part of the affirmation of commitments activities. So all the activities, for example the calls, deliberations, will become part of the public record. So for example, the recordings and potentially the transcripts will become part of the public record. So just to let you know that we are under the obligation to do that. But with that, I would like to thank you very much for joining this call, especially for those of you who are joining in early mornings or late evenings. And I also hear, [Anishid] from India was saying that he has problem joining the Adigo, so we will investigate whether the phone number in India is working and we'll provide additional updates on our call next time. So with that, thank you and have a good morning, good evening.