
ICANN76 | CF – ccNSO: ccTLD News

Tuesday, March 14, 2023 – 10:30 to 12:00 CUN

JOKE BRAEKEN:

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GUÐRUN POULSEN:

Thank you. Good morning, everyone. Good afternoon and good evening. Welcome to this ccTLD News Session. My name is Guðrun, and I'm very happy to be here in Cancún [inaudible] country in the middle of the North Atlantic Ocean called the Faroe Islands, and I represent the Faroese ccTLD, .FO.

The ccNSO Meeting Program Committee organizes two sets of ccTLD News Session. This session will be the general session, and the second session, which will take place tomorrow, Wednesday, will be on the theme of the digital divide and the impact on ccTLDs. Tomorrow's session will be chaired by Annaliese Williams from .AU.

The ccTLD News sessions have been a part of the ccNSO Members Meeting for several years and have provided a global platform for both experienced and new people to meet. It's a forum where we share experiences and discuss ccTLD-related aspects. The next 90 minutes, we'll hear updates from six ccTLDs. We'll hear from Argentina, South Africa, Canada, Czech Republic, Russia, and Indonesia. For the remote participants, we can let you know that all six presenters are present here in the panel today, which we are very happy about.

As already explained, this session will have live interpretations, and Andrea Ramos from Argentina will be our first presenter. She will present in Spanish, so to all of you who need a headset for the translation, please prepare so you're ready to listen to her presentation. Please let me introduce our first presenter today. Andrea is the Managing Director at .AR and has been for the last three years. She will give a presentation on what .AR has done to celebrate their 35th years of existence. And before I give the floor to Andrea, this is her first ICANN meeting, so let's welcome her with a big applause.

ANDREA RAMOS:

Good morning, everyone. I would like to thank ICANN for this opportunity, to Everton for the opportunity and the patience. It's very important for us to be here and also to speak in my own language. This beautiful building is called Palacio San Martin. San Martin Palace is the seat of the Ministry of Foreign Affairs of Argentina. It's in the city of Buenos Aires. And on September the 23rd, 1987, at an office quite close to that, a young group of pioneers received a confirmation. The .AR domain was officially registered. Argentina had its Internet identity. Next.

35 years later, our ccTLD has almost 700,000 domains registered, as you can see in the graph. Most of them are in the .com, .AR, and even with the TLD, it's 14% of the total domain number. Registration can take place in the TLD since 2020. We have grown a lot there, and it is a challenge for Argentina. People find it hard to incorporate, but that merits a separate talk.

This is my nephew in love with his mobile. Undoubtedly, the Internet has changed our lives completely in a very good manner, wonderful manner. Yesterday, we were saying that it is the most important transformation in our history. We are contemporary of this transformation. But this transformation also brings huge challenges, a new challenge every day. A lot has been said about them, but in the light of these challenges, we have more questions than certainties.

We had to celebrate our 35th anniversary. We could have a cocktail, a webinar, but to celebrate our first 35 years, we decided to create a space of dialogue, of reflection, plural, diverse, to see whether we could find some answers and, I'm sure, to create new questions. We gathered 35 brief articles that over 40 writers wrote. You may know Olga Cavalli, [inaudible], many KOLs in governance and the history of Internet in Argentina, journalists, people from different countries, journalists, people from the academia, Internet users, people who dwell in gaming, streamers, social media.

We put together a variegated group and inclusive to think of people in the Internet. You can see the little cat which belongs to the editor and which was part of the process. Many people wrote and actually, those that can read the book, then I'm going to tell you about language. You will find all sorts of things, but let me highlight two pioneers. This is [Jorge Amodillo.] He was part of that pioneer group that registered .AR 35 years ago and that article tells us that the Internet connection was very poor, that the first DNS server was not hosted in the country, the phone connection was primitive, but we were already connected to the world and that was what mattered.

A lot was said yesterday about women's participation. She is [Alicia Banuelos,] an Internet pioneer, the first individual who connected an email address in Argentina, and her article includes a reflection on the present time which says that the first ones adopting technology are children, but the role of the state is critical for their...

This is especially in the global south. We put together a book to think of the digital world. Actually, we believe and we confirm that the book, the physical book, creates an experience that we don't get from a PDF. That is an image of thanks of a small library in a very small place far away in our country and I don't think we could have gotten this from a link. We still have different sensations from the physical world.

So, we have distributed via mail, land mail, over 4,500 books to public libraries, universities, schools, journalists and researchers and many colleagues from other ccTLDs from the regions. That is very important for me. Our lives go from the digital to the physical back and forth. Now, we are at a face-to-face meeting, but it's also remote and those who are here are also connected remotely. So, all of us go back and forth and the book is trying to walk that path.

Accessibility is one of the key goals now. For many people to get books, we also put together an audiobook version that can be listened in Spanish by now and all platforms and we also put together a PDF version. The Spanish version can be found through this QR that we are going to share with you. And let me go with motivations. And we want to get to more people worldwide. That's why we will go into English as well.

This year in Argentina, we have 40 years anniversary of uninterrupted democracy. For countries that are not as stable, we know that this is a reason for celebration. We are working already on a new book that will let us think of the Internet because we are convinced that Internet challenges are also the challenges our democracies face. And the best thing is to think together. Thanks a lot.

GUÐRUN POULSEN: Thank you very much for your very interesting presentation. Are there some questions for Andrea in the audience? Please, Pablo.

PABLO RODRIGUEZ: What .AR has done in this 35 years is impressive. If you would please like to share with us what other publications, if any, you have apart from that for the children and those in the pipeline right now as well.

ANDREA RAMOS: Thank you for the question. We have put together this book and we are preparing a new one. It's not that we are putting together more publications, but we share different types of content items on an ongoing basis to promote discussions and reflections because apart from being a technical body, we believe we need to work in inclusion, diversity and accessibility. Have I answered your question?

PABLO RODRIGUEZ: Absolutely. And let me confirm that you are an inspiration for all of us and a key opinion leader. Thank you very much, Andrea. Thank you very much for your words.

GUÐRUN POULSEN: Once again, thank you, Andrea. I think it's a great initiative to make a book. And let's proceed. Please let me introduce our next presenter, Veronica Motloutsi. She's the founder and the CEO of Smart Digital Solution. She is one of the leading ICT and education executives in South Africa. And I'm already very fond of her. And it's her birthday today. She will give a presentation on how to engage women and youth in the IG and DNS. The floor is yours, Veronica.

VERONICA MOTLOUTSI: Thank you very much. I just want to say that I'm also the Deputy Chair of the Board of .ZA Domain Name Authority. And today I'm going to share about our journey on how we had included women in the IT governance and DNS. I will look at why should we focus on women. I think that is a key topic also in this conference. Also understanding that we came from the International Women's Day. But equality is something that we have to drive as entities, as nations. I will also look at our efforts as ZADNA, including women in DNS and Internet governance, and how are we scaling those efforts.

Our former president once said that freedom cannot be achieved unless women have been emancipated in all forms of oppression. Lack of access in Internet, it is an oppression. Cybercrime, particularly to women and youth, it is oppression. And we have the responsibility to ensure that most women and youth and children are safe and they are also included in the DNS as well as Internet governance.

There's a need, especially in Africa, to move women to e-commerce. We talk about the Africa Trade Agreement whereby individuals need to trade among each other in our continent, even outside the continent. And one of the capability and the tool that has been proposed is e-commerce. And we ask ourselves how much effort have we placed to empower and capacitate women in the area of e-commerce and Internet. We all know that most women and children are the victim of cybercrimes. And how do we then, as a regulator and as an authority, ensure that we protect women from such crimes?

In our engagement with women and youth, we have explored several themes. That includes empowering digital citizens on the importance of protecting their digital footprint, raising awareness about domain name abuse and its impact on digital entrepreneurs, also as well as online behavior and safety, as well as cybercrime, cybersecurity, and trust.

All in all, we had a nationwide training on e-commerce, cybersecurity, and domain name abuse. We have appointed girls and women in the national Internet governance structures. And over 50% on those structure of participants are females. We also have interest groups at the college or university level [inaudible] that contribute to the IT governance and standards.

We ensure that as we register domains with the new regulations that were introduced in South Africa, it's also identified whether the registrants are female or male so that we can then start reporting and understanding the impact and the inclusion of women in domain name registration.

We are also ensuring that all the registrars and the registrants are also women because we need their participation, particularly in the townships or the rural areas. We are also partnering with training institutions, corporates on domain name to also ensure that it is included in their curriculum. We have university chairs at different universities where we make sure that there's so much research around domain name and Internet governance.

This is just a photo of a training session that was undertaken in South Africa where women were engaged in the area of IT governance of Internet domain name abuse, e-commerce, and domain name registration.

It's very important that as we talk about empowerment, we look at communities that are not in your big cities. We look at semi-urban areas as well as rural areas. This is just a slide that shows that we even go to the rural areas to ensure that people understand about online behavior. They also understand how to be accredited as .ZA registrars.

Since we started this engagement where we intentionally try to involve women in the role of ccTLD in DNS abuse, we've trained about 200 women as registrars. We are preparing to host the Internet governance forum in 2023, and women will be at the center of all engagement. We want to increase women-led registrar businesses by 20% in 2024, which is in a few months' time next year.

What are our lessons learned? We have learned that we need funding to be able to support all this intervention, and in our budgeting process, we allocate funding for women interventions. We also need to continue collaborating with institutions of higher learning and sectors of

education and training authorities to be able to scale our programs to different sectors.

Also, being intentional in building women businesses, including all registrars and registrants in the country. Thank you very much. These efforts in ZADNA are also led by women, and the dedication around including women is so amazing. I would also like to thank them, as well as our CEO, Mr. Molehe Wesi. Thank you very much. I will take questions.

GUDRUN POULSEN:

Thank you very much. Are there some questions for Veronica? Thank you very much for your very interesting presentation. Let's continue. Please let me introduce Byron Holland. Byron is the CEO of the Canadian Registry, CIRA, and has been since 2008. He has involved himself extensively in Internet governance activities within the ICANN community. He's a former chair of the ccNSO and of the Customer Standing Committee. He's currently on the Board of Directors of Canada's largest IXP, as well as on the CENTR Board.

Under Byron's leadership, CIRA has evolved from a single service registry to a world-class provider of multiple core Internet infrastructure and cybersecurity services, both for the Canadian end-users and international enterprise customers. This leads us to Byron's presentation today, which will be about cybersecurity for all Canadians. The floor is yours, Byron.

BYRON HOLLAND:

Thank you, and good morning, everybody. So, as mentioned, I'm going to chat with you a little bit about the evolving strategy that we have at

CIRA. And it's really a result of the evolving business environment, as well as the rapidly evolving threat landscape that I know that we all face.

In addition to that, of course, in the pre-pandemic years, and I think now, in a, let's hope, post-pandemic time, I think we all can see that domain name growth is slowing. So, with the increase in threat landscape, malware, phishing, botnets, ransomware, all of those other threats, and declining growth, CIRA decided that we needed to mitigate some of those risks. And we've done so by diversifying our operations, while still continuing to live up to the mandate of CIRA, our mission of building a trusted Internet for all Canadians. And over the last few years, we've done that in a number of different ways. But we've always focused on the core of what we do, the core of our expertise, viewed through the lens of our mission. And that's a bit of what I'm going to share with you today.

So, we're all in the domain business here. At CIRA, 3.3 million is a number that we readily talk about, and that's 3.3 million .ca domain names. And, of course, that is always the focus of what we do. But it's not the only thing we focus on. There's another number, 8 million, that we're quite focused on. And that's the number of end users that CIRA protects through our recursive DNS servers in Canada, primarily through two services, DNS Firewall and Canadian Shield.

Now, DNS Firewall is a commercial-oriented cybersecurity service for large organizations and enterprise. And Canadian Shield is our freeware version of that that we give away to all individual Canadians. But it's still based on the same enterprise-grade technology as Firewall. And really

what I'm going to talk about is how these services really continue to help us build on our mission. But they're only part of the suite of services that CIRA offers. So, I'm going to set the stage for those two, which is really what I'm going to talk about, by just giving you a little bit of an overview of some of the other things we do, and that's how they dovetail into our diversification strategy.

The first service that we offer is a cyber awareness training platform. This is pre-built curriculum. This is focused on Canada, so it's very Canadian-centric. You know, we spell the words correctly in English, that type of thing. And automated phishing programs. So, we have roughly 400 organizations who use our services here. 60 cities use it for their staff. 45 school boards, 45 universities. So, quite a lot of large enterprise customers.

The second main service that we offer is one called Anycast DNS, probably near and dear to many of your hearts here. And this is an authoritative DNS service that protects Canadians against DDoS effectively, for the most part. And we have nearly a million zones here, and we serve up about just shy of 4 billion queries a day. And many of those queries are through universities. In fact, we protect essentially every single university and advanced research organization in Canada, among many other customers. The third service we offer is TLD Anycast. And that's a network that we established based on the standards and security levels that we provide.ca at, but we provide it to a number of TLDs.

In fact, over the last few years, we've onboarded over 500 TLDs. And I know it's early on the first day, and fractions is probably still a struggle

this morning. So, that's about a third of all TLDs in the root zone right on our platform. And this service averages about 50 billion queries a day. Those are some of the other services that we offer in the context of diversifying our overall strategies. But the focus today is really on our cybersecurity services.

As I mentioned at the outset, our world has changed dramatically, certainly through the pandemic, but it's been very much evolving from a cybersecurity perspective over the last number of years. And that's why we decided to focus on the cybersecurity space, leveraging our own core competencies in the DNS space. So, I'll focus on Firewall and Canadian Shield because to some degree, they're two sides of the same coin, one being the commercial service, the other being the freeware for Canadians.

So, how did we successfully make this shift from a single service ccTLD domain service provider? You know, for one, we never lost sight of our mission, right? What are we here to do? And that's to help build a more trusted Internet for Canadians. So, adding cybersecurity made sense to us. We also knew that given the landscape, trust is becoming a bigger and bigger issue of end users, and I'm sure you all experience it in your own environments. So, how can we continue or how can we start to help rebuild trust in the Internet?

Secondly, we used fundamentally the same tools and technology that we use every day in our regular core TLD business. Third we developed strong and meaningful partnerships with others. We didn't do this alone. We work with other key partners in this space or in and around this space, like the Canadian Centre for Child Protection, Canadian

Centre for Cybersecurity, and the Canadian Institute on Cybersecurity. And we ingest their data to create a more robust firewall, even beyond the other feeds that we get.

And fourth, and I think this is important, we are a private not-for-profit corporation. Many of us are some version of that in this room. Fundamentally, we're not-for-profit corporations. I think that's the big difference. So, we take a very long-term view on this investment. We recognize that cybersecurity is a long game. Well, quite frankly, it's an infinite game. So, we think about our cybersecurity services through this lens, and we invest in services and relationships that can continuously evolve to meet the needs of our end users and raise the bar for everybody.

I mentioned earlier that I'm going to be focusing on two of our cybersecurity services, Firewall and Shield. Let me tell you a little bit more about them right now. Firewall is our commercial service, and it helps typically enterprise-size organizations or large organizations, but we do tailor it to all of their specific needs. We have organizations like large libraries who are trying to filter out adult content, so we help them do that. We have large universities that are continually being exposed to large phishing exploits. In the private sector, we protect a large car rental company, for example, who has sustained multiple DDoS attacks.

So, our DNS Firewall protects those kinds of organizations from many different types of threats and many different threat factors. In fact, we have about, as I said, 500 enterprise-size organizations, and we provide unique custom solutions depending on their needs. Just to give you

some numbers, because I know this is a bit of a numbers-oriented crowd, in January of this year, our Firewall service blocked about a billion malicious requests to our customers with a high of just shy of 50 million in any given day. In this service, we provided to over 100 school boards, just shy of 100 cities and towns in Canada, about 20 large hospitals, healthcare institutions, and literally every single university, college, and advanced research network in Canada is behind our Commercial Firewall service.

So, the flip side of the commercial service is the one that we offer for free to every single end-user Canadian, and that's Canadian Shield. It's one of our flagship give-back programs to the Internet community, and it fundamentally gives every single end-user enterprise-grade cybersecurity in their home, on their device, on their laptop.

It offers three different levels of protection. The first level is really a privacy level where we encrypt DNS traffic through DNS over HTTPS, and it's really to create that privacy environment for the end-user. Our second level, what we call protected, blocks malware, phishing exploits, botnet attacks, ransomware, sort of all the known threats out there. And then the third level, what we call family mode, can block adult content, and that's on any device, any router, any laptop in the home.

So, we have those three levels, and we have approximately 4 million people using this service, which for us has been a remarkable success. When we launched it in April 2020, so just as the pandemic started, the aim was to get 100,000 users within one year and 250,000 users by April 2020, and we're already up to 4 million users in Canada.

Now, in part, we do it directly, but in part, we've also partnered with Mozilla, so it's in the Firefox browser as a default application. So, that has dramatically expanded our numbers, and we're also looking forward to partnering potentially with other browsers. But on average, Canadian Shield blocks about 10 million malicious requests for our end-users per month, so it's certainly changing the environment for them from a safety and security perspective.

Just wrapping it up, as a ccTLD registry operator, we fundamentally leverage the core of what we do, our DNS infrastructure, the expertise of our people in-house and the tools that we have at our disposal to continue to build on our mission, which is to help build a trusted Internet in Canada. In fact, as CIRA continues to mature as an organization, we find that it's more and more important to find other ways to help us fulfill our mandate, other ways to help build a more trusted Internet in Canada. And as a ccTLD, we've chosen to leverage our resources to help build that trusted Internet in Canada and into the future. Thanks very much.

GUÐRUN POULSEN:

Thank you very much, Byron. Do we have some questions for Byron? Well, let's continue. Thank you very much, Byron. Please let me introduce Jaromir Talir from the Czech Republic. Jaromir has worked for the CZ registry for more than 17 years and has held many positions in the company. He has been their software development manager. He has been CZ's CTO. And today, Jaromir's title is the Technical Fellow. Jaromir will give a presentation today about using digital identity in the CZ administration. The floor is yours.

JAROMIR TALIR:

Thank you, Guðrun. So I'll try to give you an overview of all the projects that we are doing, which are trying to leverage this interesting technology, like digital identity. Next slide. And I will start with the hot topic of these days in the whole Europe, which is the revision of the Network and Information Security Directive, which was approved in December last year and now is in the process of the transposition to the national legislations. And this new directive actually puts a new obligation to the registries and registrars to have processes to verify registrants' identity or registrants' data. And in one of these recitals, the directive also specifically mentioned that these procedures should reflect the progress made on the field of electronic or digital identification. Next slide.

13 years ago, we have spotted that there is a link between the digital identity and the registry business. And we started this service called MojelD, which is "my ID" in Czech. And it works in the way that the user will register the contact with us, and we take care of the old contact data. And he can immediately use this contact as the registrant or admin contact in the registry.

We always had a strong focus on the identity checks, whether just a simple check of the email or the address or phone, but also a strong identity proofing, showing us the ID card and verifying all the data based on real identity. And secondly, we also had a strong focus on the multi-factor authentication. So in this service, we always provided these features. Currently, it consists of security keys and mobile application when you can confirm the login.

And as you can see on the graph, where there is a number of monthly authentication transactions in the service over the years, it was decreasing, many years it was decreasing, but it has changed around 2020. And I will tell you why. Next slide. So about this time, there was new law, new digital identity law in the Czech Republic that opened all the governmental services to be accessed by digital identity solutions. And the government opened possibility for the non-government identity providers to participate on this effort. So in 2020, our MojID service got accreditation. So the users now have possibility to immediately use this for accessing all these submitting tax declarations, health insurance, checking prescriptions, and things like this.

And this actually allows us one important thing that we now have a link to the user in the citizen registry. So we immediately receive the updates if, let's say, name change or the address change. So we are aware about these changes. So all the data stays up to date. And in 2022, we also got, we managed to do official notification according to European Digital Identity Regulation, eIDAS. So now the same service can be used in all EA countries around Europe. So if the Czech citizens have MojID, and so they can fill the tax declarations in all countries in the Europe online. And that's why people started to use it. And then there was the increase in the usage of the service. Next slide.

So definitely, if we want people to use the digital identity, there is a need to have some use cases. So for many years, we were also trying to get on board registrars. We have two primary programs how to support this. One is co-marketing program, where we give some money back to registrars to cover part of their marketing programs. And now from this

year, it will be mandatory to have MojeID login to participate in this program. And a similar thing on our website, we have some certification program where we rank registrars based on the features they provide to the users. And definitely having the MojeID is also giving them some high points in these rankings. And as a result, of course, many, many registrars have already implemented MojeID. Next slide.

So we have solved the situation for the Czech citizens. And then there was a question, what will we do with the foreign citizens that we have in our registry? And we had a question whether it's possible to use their own digital identities in their countries. And so we made a group of similar thinking registries of Estonia, Denmark, and Netherlands. And we initiated the project co-funded by European Commission in the year 2020 and 2021 that should resolve exactly this. Next slide.

And as the result of this project, these four registries implemented actually two things. All of these registries, each of these registries has some sort of portal towards registrants where you can sign in and use the digital identity and you can do various services there. Like for example, to do the registrant verification for DK or set up the registry log feature. So all these registries implemented authentication using eIDAS technology. So any European citizen should be able to access all these registries with their own digital identity of their country. Next slide.

So all this was based on sort of voluntary approach that we didn't push anybody. If the people have the digital identity, they can use it. But this is not enough, definitely. There are some cases where we must force and with NIS2, it will be much more important to force them to verify

themselves. So we are now building a new landing page for registrants where they will have to verify themselves. And of course, the MojeID and eIDAS are the primary tools. Of course, we still have to think about the people that don't have digital identity. So there'll be some other ways how to verify themselves, like confirm the reception of the email or something like that. Next slide.

So, and what is ahead us? The European Commission actually is right now in the process of revision of the eIDAS regulation and they bring something called European Digital Identity Wallet, which is a new approach to digital identity, more decentralized than centralized. And to support this, the commission launched so-called large-scale pilots to test this ecosystem, which we are trying to participate in together with the SIDN from Netherlands to explore the possibility how this digital wallet can be used in domain administration.

And actually, if you were here yesterday, I'm glad that even the CIRA is, there was a presentation from the Jacques Latour that even the CIRA is going the similar way and trying to take advantage of digital wallets. So I hope that we will have a chance to work together on this. Next slide.

And this is the last slide. So the revised eIDAS is a digital wallet. It also wants to improve the access to digital identity because in the current situation, the many countries do not allow private organizations to actually use the digital identity.

So I would like to end with the call to action for European registries because the NIS2 transposition to national legislations is to me exactly the right place where we could push to the governments to allow such a possibility. So if you work on this, go in touch with your government

and try to get the access to digital identity and don't miss this window of opportunity. Thank you.

GUDRUN POULSEN: Thank you very much, Jaromir. Are there some questions for Jaromir? If you have none, I have one. In percentages, how many people do enter via the digital identity?

JAROMIR TALIR: It's not much. If I look into our registry, because the digital identity is mostly tied to the physical person, the natural persons at the moment, and out of all the physical persons who are the registrants in the .CZ domain, 7% of these contacts are in our MojID service at the moment. So it's not big. We would like to have it higher, but I think this is going to change in the next couple of years, I believe.

GUDRUN POULSEN: Thank you very much. And what about your goals? What is the goal?

JAROMIR TALIR: 100%. No, no, no, I'm joking. The more, the better. We don't have any goals.

GUDRUN POULSEN: Thank you very much, Jaromir. Let's give him an applause.

JOKE BRAEKEN: If I may, there is one question in the chat for the previous presenter. Would you like to address that now?

GUÐRUN POULSEN: Please proceed.

JOKE BRAEKEN: So there was one question for Byron from Angela Matlapeng from Botswana. Byron, have you experienced any domain fluxing used for command and control infrastructure, botnets, and how have you dealt with those?

JAROMIR TALIR: Given the nature of the business that we're in, I'm not going to talk about it too specifically, but the short answer is yes, and we mitigate it through some of our DDoS services.

GUÐRUN POULSEN: Thank you very much, Byron. Let's proceed. Please let me introduce our next presenter, Irina Danelia. She's the Deputy Director at RU and has worked for RU the last 13 years. She will give a presentation today under the title And the Blind Will See the Light When Inclusivity Leverages Digital Competences. The floor is yours, then.

IRINA DANELIA: Thank you very much. Good morning, ladies and gentlemen. Good morning, dear colleagues and friends, and good time of the day to those who are with us remotely. Thank you for giving me this opportunity, and

today I will not talk about domain name registration or about cybersecurity or other DNS-related protocol issues, but I will speak about how we can make this world better. Next slide, please.

I know that many registries take very seriously their social responsibility. You plant trees, you take care of environment, you fund projects aiming the development of new features, and you provide free cybersecurity services to everyone. I will speak about a project aiming to make Internet more inclusive and more accessible.

During pandemic, almost all our life moved into the Internet. We purchased online food and tickets and medicine. We communicate online. Next slide, please. But is the Internet we use equally friendly to everyone? Is it equally accessible? Can we have a next slide, please? What about people with disabilities? What about people with visual disabilities?

And I'm now speaking not about people who see badly, but I am talking about people who don't see at all. Does anybody here in the audience know how these people use Internet? Just wave your hand if you know. I see a couple of hands. Yeah. They use specific software which is able to convert text from the screen into the voice, into the speech. It's usually referred as a screen reader, but not every website or mobile application is compatible to this screen reader. Not every webpage can be used and accessed by a screen reader. Next slide, please.

There are certain requirements which should be followed if you want people with visual disability to be able to access your website. The structures, the layout, the semantic markup must be accommodated and compatible with screen readers. Just as an example, on the right

side of your screen, you see the example of captcha, which is widely used on the websites. This is an impassable barrier for people with visual loss because they just cannot click with the mouse on the right quadrant. They have no chance to do it.

Another big issue for blind people could be when you change the design of the website. Just imagine, you go every week in the supermarket to purchase food for the week, and you know that milk is here and toothpaste is there, and one day the owner decides to improve your customer experience and moves all the goods on the shelves. You come, oops, instead of milk on this shelf, you see potato. What would you feel? You would feel maybe slightly lost and frustrated. Now, imagine what the people with visual disability would feel. Next slide, please.

So if one wants to make his website or mobile application accessible for screen readers, there are just three simple steps. First, definitely conduct an audit of what you have and to which extent it is accessible. The next step would be to adapt the design to ensure it meets the set of standards and requirements, and definitely do the testing. And best of all, if you can involve your target audience in the testing. And the developers team you work with definitely needs to have competences in all three areas. And if they don't have, just look around. You may find other partners who have these competences. Next slide, please.

Now, let me move to the particular project we did. We as a registry have been running for more than 10 years already an educational project study Internet governance. It aims to increase digital competences of schoolboys and schoolgirls. I will not go deeply into details of this

project, but it has a number of key components, one of which is a knowledge base with the ability to learn and then to self-test via interactive games. And every year we add new features to this project. So it's constantly under development. And one day back in September 2021, my colleague Olga, who leads this project, came and said, I know what we need to do next. We need to do this project accessible to blind people. Wow, we said, great idea. Why haven't we thought about that before? But how can we do that? Next slide, please.

And we started to investigate and to look around. And we found a great partner, which is called Space of Equal Opportunities and Trademark Everland. And this is a community of people with different types of disabilities. And they aim to assist disabled people with their issues, starting from free taxes and ending providing job opportunity and learning courses. And they have a unique team of software developers, which consists both of people with normal vision and with visual disabilities. And they agreed to conduct an audit for us. And then they also assisted us with testing.

So the result of the audit actually was quite negative. They said your project has too many interactive elements. To adapt it, you have to rewrite it from scratch. I said, okay, if I cannot do all the project, we can design a new module, which will fit necessary requirements. So we started the design, involved our usual web design company partner. Next slide, please.

So this is actually how the result looked like. Almost no graphic, quite simple layout, very structured approach. But this is what works well for screen readers. Next slide, please. And then it was tested by the space

of equal opportunities team. And we went through voluntarily certification and get a certificate that it matches their requirements. And the project was launched in December. It went live in December 2022. And now the next step is definitely to promote it, to actually announce it to potential users, and to get feedback, definitely, because it's our first experiment. And we definitely want to know what we did well, but also what we did not do well.

And so we are partnering with the library for people with visual disabilities in St. Petersburg. Also, we partner with the Central Library for Kids in Moscow. And we're going to have it presented during the events for blind people in March and April. And we are very, very much looking for the feedback, really. So next slide, please.

So to conclude, I want to say that such project probably cannot help blind people see the light. But it can probably help them to feel a little bit better in this world and make the Internet we use a little bit more friendly and accessible for them. So this is not about them. This is about us. Thank you for listening.

GUÐRUN POULSEN: Thank you very much, Irina. Are there any questions for Irina? Please, Everton. Thank you.

EVERTON RODRIGUES: Thank you, Guðrun. Thank you, Irina, for your presentation. Well, it's just a comment. Well, this last slide is just perfect for one of the comments that I was about to make. That is, accessibility is not something we should think of just for some people who have

permanent accessibility issues, but also for any of us who, in a given time, may not make to access a given website. So somehow, in a given time, we may think of accessibility permanently.

And the second comment, very quickly, is that .PR also has many initiatives related to web accessibility. We have very important partnerships, and we would be glad to be in contact with .RU to exchange ideas and best practices and also to hear from you in that space. Thank you.

IRINA DANELIA: Great. Thank you.

GUÐRUN POULSEN: Thank you very much, Irina. We are still really good on time. Are there any other questions for Irina?

BART BOSWINKEL: Pablo has a question.

GUÐRUN POULSEN: Please, Pablo.

PABLO RODRIGUEZ: Thank you. Thank you, Irina, for a fascinating presentation. I am so excited and interested in learning more about what you guys have done, so I will definitely be reaching out to you. But my question is, what type of organizations? You mentioned the libraries, the public libraries, in addition to perhaps schools and other places that are making

particular content accessible. What type of content? Educational content? Any type of content? Please expand. Thanks.

IRINA DANELIA:

I mentioned libraries as a potential partner in promoting this particular feature, this module, because this is an educational module, and we already have some history of interaction with libraries to reach, actually, teachers, schoolgirls, schools, etc. So this is the channel to distribute information about this particular project and get feedback.

In terms of the accessibility of the content, I must be honest that there are quite big Russian companies which take care about it. For example, like Yandex Delivery, which helps you to order food or Yandex Taxi. So some of the big companies really care about that in their applications. And there is also a state standard in Russia which describes a requirement for governmental and public websites, but these are requirements to be adopted for the people with poor visual, not for complete loss. But there are many things done already, but there are much more things that should be done, to be honest.

PABLO RODRIGUEZ:

Thank you very much.

GUDRUN POULSEN:

Thank you very much, Irina. I actually have one question. Do you have any numbers or figures of how many people access the website?

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- IRINA DANELIA: Well, since its launch in December, as I mentioned, it was not strongly promoted, but during the last 30 days for this particular module, there were around about 400 visits and 240 unique visitors. We do not know who are they actually, how do they see. So figures are comparatively low at the moment, but that's mainly because of... also because we do not push it strongly before we get additional feedback.
- GUÐRUN POULSEN: Thank you very much. Very interesting. Let's proceed. Please let me introduce our last presenter. [inaudible]
- ANDREA RAMOS: I'm Andrea and I will speak in Spanish. I'd love to participate in an exchange between Brazil and Russia about accessibility because we work a lot in that area and we all have a lot to learn from one another, and shared experiences are very good for this. Thank you.
- GUÐRUN POULSEN: Thank you very much. Please let me introduce our last presenter today, Yudho Giri from Indonesia. Yudho is the president of the IDN ccTLD. He's also a professor at the Faculty of Computer Science at the Universitas Indonesia. Yudho's presentation today will be the last presentation in the session and it will be the lead into tomorrow's ccTLD news session on the digital divide and the impact on ccTLDs. The floor is yours, Yudho, and you have more than seven minutes.

YUDHO GIRI SUCAHYO:

Thank you very much, Guðrun. Good day, everyone. My name is Yudho Giri Sucahyo from PANDI who manages .id. .id is actually the country code for Indonesia. It's a long way coming down here. So my country, Indonesia, if you don't know Indonesia, we have Bali Island as one of our islands. We have more than 17,000 islands. And according to the last survey from the Indonesia ISP Association, or we call it APJI, the Internet penetration in Indonesia has reached 78% of the people and we have 275 million. So in total, the number of Internet users in Indonesia is actually 215 million.

So this session is actually simply a teaser because tomorrow we will talk about digital divide as one of the sessions in ccNSO. Now, what happened in Indonesia is that more than 60% of the Internet users are still concentrated in Java and Sumatra Islands. We have five big islands and we have 17,000 islands in total.

In Mexico, they have more than 60 local languages. In Indonesia, we have more than 500 local languages. So it would be interesting if, let's say, some of them in the future will be part of the IDN. Okay, so Veronica mentioned about Internet governance cannot be separated from IT governance. And when we speak about IT governance, according to the textbook, there are four IT resources that we need to manage. The first one is infrastructure. And then the second one is apps. The third one is data or information. And the last one is people. So in the next couple of minutes, I will explain about the digital divide in Indonesia using those frameworks. It is actually part of the [inaudible] 2019 framework.

The first one, infrastructure. Indonesia has built submarine cable finished at the end of 2019. At least 35,000 kilometers, cost 1.5 billion

US dollar. And the name of the project is [inaudible]. However, four years after that, we still have problem with last mile problem. How to connect the submarine cable to buildings, to offices, to schools? Yes, we do have hundreds of ISPs in Indonesia, but the POP, point of presence of ISPs in Indonesia, mostly located in Java and Sumatra Island. We do consider the use of satellite before the era of Starlink, of course. But you know that the cost of the satellite and the reliability and also the speed of the satellite is still not enough for our people.

The Internet connection is one thing. But if you follow the UN slides, actually bringing the computers and educate them on how to use the computers is another thing. Which is why our government has an initiative using the universal service obligation funds combined with public-private partnership. In Indonesia, we have built several kinds of mobile Internet access. I have lots of pictures about that. You can just approach me later during break. But we have built a mobile Internet access on a boat, in a van, even four-wheel drive, to reach some regions in Papua, which is actually not easily reached by simply a car. And also we have built a mobile Internet access using the motorcycle.

Next one, apps. The interim CEO of ICANN, during the welcome ceremony, already mentioned that ccTLD and also ISP, we have an obligation to make sure that people can access the Internet. And by interpreting access to the Internet as actually access to the apps. So even though our part actually looks small compared to the health workers during the pandemic, but we can learn that in the last pandemic, we really rely on the usage of IT and especially for our Internet economy.

Our leaders mentioned that Indonesia will be the fifth largest Internet economy in the world. So when we cannot provide Internet access and application access to our people, that's actually one kind of digital divide that we actually blocked their opportunity to access the Internet economy. So which is why, together with the Indonesia ISP Association, we have put many DNS nodes in many cities in Indonesia, simply to provide a reliable, stable infrastructure for the Internet ecosystem in Indonesia.

Back in Indonesia, you cannot register as a civil servant or as a government employee, if you do not know how to use the Internet. Back in Indonesia, you will not be able to register to public school or to university, if you do not know how to use the Internet. Our literacy rate is actually more than 90% thanks to the mandatory education system in Indonesia.

The third pillar is data or information. Now, yesterday, I followed one of the GAC sessions talking about WHOIS personal data protection, etc. Now, we also need to teach our people related to digital divide on their digital literacy, especially related to cybersecurity, as explained by Byron.

In Indonesia, we have the case of ransomware. We also have the case of phishing. And in the last five years, the use of .id for phishing is actually increasing, which is why we set up what we call Indonesia Anti-Phishing Data Exchange to cooperate with other Indonesian ISPs in Indonesia. And you can simply access idadx.id to know the report of phishing in Indonesia using .id. And we also cooperate with ICANN, especially ICANN Asia Pacific. And we also cooperate with APNIC to educate the

network administrator in our country. We train them on how to set up a DNS. We train them about DNSSEC. We train them about DNS ecosystem and also IPv6.

The last one, people. So, when we talk about people, we can divide into four categories. The first one is actually digital awareness of the people. The second one is actually digital literacy of the people. Third one is actually the digital competence. And the last one is actually digital expert. Now, in terms of digital literacy, Pandi, ccTLD of .id, always partnering with government and academia because Pandi is actually a multi-stakeholder organization. We have somebody from academia. We have somebody from the government. And we also have somebody from industry. Together, manage the .id.

So, we also participate in the national digital literacy movement coordinated by the Ministry of ICT in Indonesia. And we have built curriculums for that digital literacy. Feel free to ask about any literacies of that later. But we have divided the digital literacy into four pillars. We need to educate our people about digital culture. We have to educate our people about digital skills. And then digital ethics. And then the last one is actually digital safety related to what Byron has explained on cybersecurity and also phishing and other domain abuse.

In terms of digital competence, Pandi has set up what we call Pandi Institute. And in Pandi Institute, we teach our people on anything about IT and also anything about the application of Internet for their life. However, our government also provides what they call a program digital talent scholarship cooperating with universities in Indonesia.

Our government also provides digital leadership academy for those government officials. And all those programs are actually for free.

In terms of digital expert, our government also provides scholarship for master and PhD. But related to Pandi, with Pandi Institute, we have reached SMEs, small, medium enterprise. We also have reached the education sector, teachers, students, etc. And also women. So by combining and doing and cooperating with all other stakeholders, the number of domain .id has reached from 350,000 in 2019. And we have successfully doubled into more than 700,000 in 2022. So within just three years. And we are actually looking forward to get our first million maybe in the beginning of next year. But up until now, we have reached the highest number of domain, Internet domain in Southeast Asia. Thank you very much. So feel free to contact me after this or approach me after this to know more about the digital divide and digital Internet ecosystem in Indonesia. I'll give it back to our moderator, Guðrun. Thank you.

GUÐRUN POULSEN: Thank you very much for your interesting presentation, Yudho. Are there some questions for Yudho?

BART BOSWINKEL: Yes, again, Pablo has a question.

GUÐRUN POULSEN: Please, Pablo.

PABLO RODRIGUEZ: Thank you very much. Fascinating presentation, Yudho. Thank you so much for the information you've shared with us. The question that I have in mind is how do you manage to get people who do not speak the main language to register in schools and to take advantage of all the different services that you currently have online, but may not be in all those 500 languages that you were speaking about? Thank you.

YUDHO GIRI SUCAHYO: Okay, thank you. Even though we have more than 500 local languages, fortunately, we have what we call Bahasa Indonesia. It's actually the language that is spoken by all people in Indonesia. So that's our national language. But besides that, we have 500 local languages where actually their script is actually not Latin. We have worked very hard to get all those scripts to become the national standard. And we are actually currently looking forward to increase the status of those scripts in Unicode. And then after that, we will apply for the IDN.

Now, in terms of how can we engage people, especially not in the mainland, that's actually one of our main challenges. But when we cooperate with our government, in this case, the Ministry of ICT, they have many programs to reach those rural and also not in mainland location. And what happened in Indonesia is that when people buy a domain name, we also pay a certain tax to our government. Not much, only 5%. But that tax is actually considered as non-income tax. But the good thing is that the tax collected as a non-income tax from the domain is actually given back by the government to us so that we can do any programs related to digital divide, any programs related to building the digital ecosystem in Indonesia.

So we usually cooperate with our government to reach many islands in Indonesia. It is expensive, yes. But it is not about us. It is about the next generation on how can we provide the same digital opportunity as us to those people so that they will be able to reach or to get what we call the Internet economy that we actually always use it day to day. That's from me, Pablo. Thank you.

PABLO RODRIGUEZ: Thank you for a fascinating presentation once again and thank you for your response.

GUDRUN POULSEN: As Chair, I want to thank all the presenters for their very insightful and interesting presentations today. Let's give them a big hand. All the presentations will be available in the ICANN 76 public schedule. And if someone wishes to ask the presenters some questions or to approach them, feel free to get in contact with them. You can find their information in their presentations already available in the ICANN 76 public schedule. Thank you very much for today. See you.

[END OF TRANSCRIPTION]