ICANN78 | AGM – GAC Capacity Dev Workshop (8 of 10)
Sunday, October 22, 2023 – 1:15 to 2:30 HAM

GULTEN TEPE OKSUZOGLU: Hello, and welcome to the ICANN78 GAC Capacity Development Workshop Alternative Namespaces Policy Issues for the GAC, being held on Sunday 22nd of October at 11:15 UTC. My name is Gulten Tepe Oksuzoglu, and I'm the remote participation manager for this session. Please note that this session is being recorded and is governed by the ICANN Expected Standards of Behavior.

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into Zoom sessions using your full name. With that, I will hand the floor over to Alisa Heaver and Owen Fletcher. Alisa?

ALISA HEAVER: Thank you, Gulten. This is Alisa for the record. Welcome back everyone. I hope you had a lovely lunch. Well, we've heard a lot this morning about technicalities of blockchain DNS and the regular DNS. And this afternoon, we'll start off with a panel discussion as blockchain-based namespaces have gained greater attention in recent years. The namespaces operate in a decentralized manner and are not accountable to ICANN like the gTLD registries and registrars. We've set up a panel hopefully that can discuss the blockchain DNS in various-- well, they all have a different angle towards it. And, yeah, I will hand it over to Owen to introduce the panelists.

OWEN FLETCHER: Thank you. Hi. I'm Owen Fletcher from the US government. Very happy to be here with Alisa to co-moderate the panel and to introduce our speakers. I'll start by saying everybody's title as we only have their names up here on the slide and then we'll proceed with having the panelists give some remarks.

So, here we have Ray King, CEO and co-founder of domain name registrar Porkbun among other history you have with other businesses. We have Marc Trachtenberg, who is chair for Internet, Domain Name, eCommerce and Social Media Practice at Greenberg Traurig LLP. Brian Beckham is head of WIPO's internet dispute resolution section. Georgia Osborne is senior research analyst at the DNS Research Federation. We

have Swapneel Sheth, a senior director of research engineering at VeriSign, and we have Régis Massé, the CTO of Afnic and vice chair of the security working group of the ccNSO as well.

So, I'd like to propose we start with Ray and maybe go down the line. Everybody can give a brief introduction to who they are and who they're representing, why they're interested in these issues and then we'll let go on to further discussion.

RAY KING: Thanks, Owen. Yeah. I'm Ray King, and I was first introduced to the ICANN world in 2000 when I co-founded a company called SnapNames in the business of helping people grab names in the secondary market. And then in about 2006, I started a nonprofit called ICANNWiki, which some of you guys may know. Information about the ICANN space, built by the ICANN community for the community helping people learn more and participate. And then in 2012, I participated in the new round of TLDs. We applied for 10 TLDs. We ended up ultimately with 5 and we have since exited that business. And now I'm focused primarily on Porkbun, which is our registrar.

And I think I was asked here today because Porkbun is one of the few registrars that has actively sold web3 names. We've decided to focus on Handshake names. And we liked the ethos of that project, and we thought it made sense to experiment both ourselves and to give our customers the ability to experiment. So, we made them available with a giant warning, these are experimental. And we really want that our customers to be able to see what it was like to register a web3 names and to be able to experiment alongside. And we're trying to be very

clear and not misdirect anybody into thinking that these would work similarly to a traditional web2 name or ICANN name. So, anyway I'll hand it over to Marc.

MARC TRACHTENBERG: Thanks, Ray. I'm Marc Trachtenberg. I work for Greenberg Traurig, which is a large international law firm, and I'm the chair of the Internet, Domain Name, eCommerce and Social Media Practice. As part of that practice in increasingly, I'm advising clients on crypto, blockchain and NFT issues that affect their various businesses. I've been involved in ICANN for over 20 years. I currently sit in the IPC, but previously sat in the registrar constituency when I got accredited to the first ICANN accredited law firm owned registrar. So, I've been in this space for a while.

We have all sorts of clients. We represent a lot of brands of all sizes large and small. Brand owners are very concerned about the potential misuse of web3 domain names, primarily their potential use to engage in fraudulent transactions in the crypto space and the metaverse with their customers, but also other security issues as well. That being said, a lot of brand owners are also interested in using Web3 domain names to interact with their customers and engage with them in new and innovative ways. I also represent a lot of registries, registrars, and other internet intermediaries. Some of which sell web3 domain names and others which are interested in offering them or looking to integrate with various web3 properties and services and to offer this functionality to their customers.

BRIAN BECKHAM: Thanks, Marc. I'm Brian Beckham. Some of you might know me. I'm with WIPO, the World Intellect Property Organization. We are one of the topic leads for the GAC on rights protection mechanisms. And we operate a system called the UDRP, the uniform domain name dispute resolution policy. This was developed at the request of WIPO member states in 1999. It was turned over to that then new ICANN, whose DNSO adopted it and it was the first consensus policy. And we've been managing the UDRP ever since.

Our cases over the past 8 or 9 years have increased about to 10-15% year on year. We are looking to hit 6000 cases this year. In addition to the UDRP, we also operate a dispute resolution system for about 80 country code top-level domains, some of which are represented here in the GAC room. Those cases like the UDRP also continue an upward trend.

And I think in terms of the question of today's session, there are a lot of parallels between the late '90s and the intersection of trademarks and domain names and the questions that led to the creation of the UDRP in the first place and what we're starting to see in terms of the so far largely unregulated blockchain domain space. And so, we're from our dispute resolution experience and expertise looking at whether the UDRP or UDRP models can be deployed in those spaces and, of course, we'll mention some partnerships that we're actively engaged in on this front. Thank you.

GEORGIA OSBORNE: Hi, everyone. I'm Georgia Osborne. I'm senior research analyst at DNS Research Federation. And I'm going to talk to you about some of the

research we got asked to do today on blockchain domain names. You've heard a little bit about the high-level view and also the technology of it. And I'm going to talk to you about some of the usages and what we see that users are using it for with some of the research that we've done with the DNS research federation. I also manage quite a few of the research projects that we have at the DNS Research Federation. And for a previous life, I was an intelligence analyst, so I bring some of that into some of the data analysis that I've done.

SWAPNEEL SHETH: Hi. I'm Swapneel Sheth, and I'm representing Verisign here. This topic I think I've been in invited this panel discussion of, thank you for that. As well as we have been public with our position on this topic. And I've been presenting on this topic the last 10 to 12 months, most recently at the ICANN, the Verisign that was held in Vietnam. So, what have we been talking about?

So, we all know blockchain domain names have been used as identifiers for various applications for a long time now. Back in the old days of DNS, we started with Telnet FTP servers and then email services, and then later web browsers. In the recent years, what we have seen is that there is a demand or emerging use case within the decentralized or blockchain applications for human readable identifiers. And so, I think that's-- Yeah. So, in these applications, the identifiers can be associated with the resource on blockchain, and more specifically the resources blockchain address. And the resource examples as we heard this morning could be a digital wallet or a smart contract.

Now, I think this is one of the big reasons why we think there are these blockchain namespace alternated namespaces that are popping up because there is a ubiquitous need to improve the user experience within these applications. For example, by associating a human friendly identifier to a long alphanumeric blockchain address. So, what I'm here to do today is to have a conversation discussion and promote collaborative effort for all of us to work together on coming up with standards best practices and policies for responsible DNS integration. What I mean by responsible, I will shine more light upon that as we go through the panel.

RÉGIS MASSÉ: Hello, everyone. I'm Régis Massé, CEO of Afni.fr, and I have a special fort for all different communities in the room today because you will have a large week of English-speaking presentations. So, I will make most of my presentation today in French and to thanks also the amazing work of the translator we've got in a room. So, I'm switching French. Hello, everyone. My name is Régis Massé. I am the technical officer of Afnic. Afnic is the registry for the data for in France. We also are the registry for 5 ultra marine zones. And we are a technical registry operator for about 15 new gTLD.

I have been there for 15 years. I have been for more than 20 years involved in the DNS mostly with ICANN. And with Afnic, we pay close attention to this public good that we all share and for which we are gathered this week. It still works even though there are emerging technologies that come about every year. But it is still important to wonder and to ask ourselves, are those technologies risky for us for the

industry? Are they risky for the use of the internet, for the user, and for users in general? More than 70% people use the internets throughout the world. That's a large number and it works.

Alan David this morning reminded us that this public good does work and that it enables everyone of us to communicate. And that's very important. So, even though at ethnic we do have-- I'm trying to speak a little slower for the translator. My apologies. At Afnic, even though we have a research and development team that analyses what might be the internet of tomorrow, we work on topics such as internet of things digital identity, blockchains and so forth, because those topics are the topics of the Web3, but we still need to identify the opportunities and advantages because there are some, but also the risks of working and modifying something that has been working for more than 40 years.

So, I hope that the debates today will enable us to exchange on those points and to basically look at all of these emerging technologies with a little bit of distance. And if there are English questions, I will answer in the English, if it's easier. Thank you.

OWEN FLETCHER: Thank you. Okay. I'm going to invite our panelists to expand on the points they've just made. We should have a slide that depicts Georgia's research. Can we get there? Okay. And Georgia would you like to go ahead please?

GEORGIA OSBORN: So, myself and Nathan Allen, who is in the audience currently started this research project about a year and a half ago now to look at

blockchain domain names and the usage of it. Now this is some of the high-level data that you can see from the research. So, the first thing I'll talk about is that the total registered blockchain domain names that we've got which is for the two we thought at the time most popular blockchain domain name providers which is Unstoppable domain names and Ethereum name service.

Zilliqa Naming Service is actually owned by Unstoppable so we've included it in this chart as well. We can see that the number the total registered blockchain domain names for these providers is over seven million. So, there's two things that I would say about this number. So, many of us are familiar with IDNs or internationalized domain names. We've all been encouraging this for years and the number of blockchain domain name registrations has exceeded this already.

And then the second interesting thing, I would say is that when we first finalized this research project in May of this year, the total amount of registered domain names for these providers was about 6.2 million. So, you can see that there's been-- Oh, 6.4. Sorry. 6.4 million. So, you can see that there's been an increase just in the last few months alone of 1 million registrations.

Okay. So, there's been an increase. There's been a massive increase. Does that mean that they're being used in the way that they were advertised to be used? So, it doesn't necessarily mean that. So, you can see that there's a number on the far left over there, which has or I think it's probably you're right, which has the total amount of the total unique wallets IDs. So, this means that the amount of independent or individual users with their wallets who have purchased blockchain

domain names, and you can see that it's much, much lower than the amount of registered blockchain domain names which suggest that actually that they're buying them in bulk. So, that's the first thing I would say about that.

So, we've got also the most popular record types there as well which is you can make some inferences about how they're being used from the record types that we found. So, from the record type, you've heard earlier of the different use cases for blockchain domain names. One of the popular use cases for them is claimed to be connecting to a crypto wallet, and I'll give you an easy example just it's easier for you to know. This is not my crypto address so please don't send me any crypto.

Let's say you wanted to connect it to your wallet like Georgia.crypto or Georgia.wallet and say please send me crypto. So, this you can see in the first, I think it's through first two or first three or four first sections, you can see that the record type is crypto.eth.address, which is the connection to a wallet. And then on the fourth one you can see IPFS, which is internet interplanetary file system HTML.value. So, that's the amount that have been connected to blockchain web page or a blockchain domain name on kind of content on the IPFS.

And then below that, you've also got the amount that is for WHOIS sale. And I believe that's just for Unstoppable, but I will just double check with Marc. Yes, it is. He's nodding. So, it's just Unstoppable there, but I think it's important to look at that you can draw some inferences from the use cases. So, you can see that the first is connecting to the wallet. The second is potentially for some content, and the third is to maybe

speculatively trade them or sell them just like you might see on general NFTs. So, those are the first things.

Now so we can't make many predictions about how they're being used. The best thing to do is to talk to people using them. So, I think that's the next step for this research. But then the final thing I would say is we heard from the previous the OCTO team which did a fantastic presentation on the technology behind it and what that means, is just because it's not efficient, it's not practical and technically, it's very difficult. Just because it's not practical and not efficient, does not determine what's popular or what Gen Z like these days.

And I think that's really important to know when going forward with this, that we can draw as many predictions as we want but ultimately, we don't know what will be popular. Often what is practical is not always the coolest according to Gen Z.

So, those are the final points I would say. The paper that we created and produced is out pre-journal publication and we had about five recommendations for policy makers. So, the first one is just increased alliances. You heard that it's very uncoordinated area. And the second is unity between different blockchain domain name providers. We heard that there's more than a dozen blockchain domain name providers and they all have different policies, and all have different ways of doing things. So, if there was some unity, that that could be a practical recommendation.

The third is ICANN engagement via these types of workshops so that we all know the challenges, we all know the trends. The fourth is upskilling and capacity building such as this workshop which I'm very glad to be

part of. And the fifth is further research and monitoring trends. Because of these recommendations, I really look forward to the discussion and to hear about some of the difficulties that we can have with this and hopefully have some discussion. It can be a polarizing topic as I'm sure some of you might be aware and I'm sure you will all will found out. It's difficult to know where the middle is and that's where I'm hoping we can get to you today. Thank you.

ALISA HEAVER: Thank you. Yes. Now it works. Okay. Thank you for putting some numbers to the amount of registered names in the blockchain DNS. Régis, you are involved in running different ccTLDs and gTLDs, including .Fr. And what's the take of Afnic exactly on the alternative naming spaces and what is associated or what are associated risks and opportunities according to you? And as I don't speak French I'm asking my question in English, but feel free to answer it in French.

RÉGIS MASSÉ: Yeah. So, indeed at Afnic, as I mentioned we are the manager for FR and we are the registry operator for new gTLDs as well as we take care of technical guidance of French-speaking countries in Africa to automate their registry system.

So, the idea is at Afnic that we are asking ourselves different questions. First of all, in terms of the blockchain and blockchain champions, some say that it may not work with the DNS. So, we looked at that very closely. I'm not going to go back on the different arguments that were given to you this morning and the different elements on that. But if we

look at things with a global view, the idea centralization and decentralization of the root and of ICANN, that is something that is not as true as it might seem.

As was explained by OCTO this morning, the root has 1300 extensions that have domain names that have named servers that depend upon them, and you as governance you at your level have the possibility to define policies and strategies, whether it is who is entitled to a domain name, who or how to fight against DNS abuse in order to decentralize a common resource even though it works for all so that each person at his or her own level might have the ability to define its own role.

Now there is important thing in my opinion, and I mentioned it in the beginning when I introduced myself, which is the easiness of use of those unique identifiers domain name for and users. I started in the technical field when I was about 10 and I think I do quite well with technology. But for the basic user who tries to register a .th on the DNS, it is difficult and it is much more difficult than what we have today when you register a domain name with a registrar and to make it communicate via the registry so that it might be published throughout the world now.

As Anna reminded us this morning, all of the tools are different. Today on my phone, I have 7 internet browsers depending on the use that I target. Do I want to go on the blockchain? Do I want to go on the internet? Do I want to go on the TOR network, the .onion that also exists? That for ICANN and for the IANA function has to do with special uses. So, a company cannot use the .onion even they plant onions from morning to night. But you don't have the DNS mechanism in the

background that is used. And so, it makes things more complex for the users for the businesses.

And the idea and you saw that this morning with the blockchain, the idea of the registry on the blockchain that is quite burdensome which is to create a new block and to have those minors who compute so that the first one wins and gets the award so that he can publish a certain number of domain names in the blockchain. Whereas today it's quite simple to connect to a registrar in order to register at the level of a registry a domain name so that it might be within one hour published on the internet. That's quite different.

And then there's the idea of energy resources and we really look at that very closely at Afnic. I'm not going to go back on all the points that we developed this morning, and I would like to give the floor to the other panelists as well. But in terms of energy, at Afnic we have carried out studies on carbon emissions and we look at the cost, so to speak, of a domain name. But the last studies are at about 150 grams per domain name per year in terms of CO2. So, one DNS transaction is 10 grams per node. There are millions of nodes that replicate the registration of the blockchain. So, you can make the calculation and balance out a DNS domain name and the blockchain domain.

So, I don't want to be so negative. I don't think it is only about disadvantages. There are opportunities with that technology. So, let me take an example and I'll end there. In terms of transparency and traceability of the life cycle of a domain name, what might be interesting in the evolution of the blockchain would be to say that we could have in a blockchain the entire operations, all of the operations

that happened throughout the life of a domain name from the moment it was created until tee time. Even though it was created several times, even if it moved from a registrar to another but to see the entire life of a domain name in a transparent manner.

It could be interesting. It could be done in a black chain. And as Alan mentioned it this morning, it would be good because you can't hide anything. Everything is visible on the block, and you can see the entire life chain of this domain name. And we can even go further and have all of the operations that were realized by registrars on this domain name. We have four million domain names and there are hundreds of operations every minute that come from registrars. I'm thinking about my neighbor, Verisign, on the .com. Those would be enormous blockchains with incredible computing storage abilities and the interest would be much less.

So, there are opportunities that we can work on. I think there will be other questions that this will raise. We could extend the DNS that we have with new registrations to store information that we have in the wallet or information on the internet of things. All of these things are possible points that we can work on. We could also think about many other possibilities before telling ourselves that it is a replacement of the technology that we have been using for years that this technology represents.

OWEN FLETCHER: Thanks, Régis. Please be thinking of questions you might like to ask our panelists as we'll have time for that at the end. I'd like to ask Marc, you mentioned of course that you have a wide range of clients, but including

brand holders who are concerned about rights protection with blockchain names. I'm wondering if you could share more about the views there, how people are trying to address it. As we heard this morning, content cannot be removed once it's posted on a blockchain. Also, curious if you have clients who are thinking about or you're thinking about what this means for the next round of new gTLDs, which there was also a question about this morning from the audience. Thanks.

MARC TRACHTENBERG: So, one of the biggest challenges that brand owners have with blockchain domains is while in some cases some providers like Unstoppable have a reserve names list for what they consider famous brands, which it's kind of an arbitrary selection where they just draw the line of what brand might be famous or well-known enough to be on that list. But if your brand is not fortunate enough to be on that list, then most likely a third party has registered a blockchain domain name consisting of your brand.

Now when that happens, you have a huge problem because number one, it's hard to identify who owns that blockchain domain which is a huge issue. And number two, even if you were somehow able to identify the person that registered that blockchain domain name, there's no dispute resolution mechanism, or in many cases, legal remedies to be able to do anything about it at all.

Now, we're seeing some cases go through the courts, at least in the US, where for example, people have been able to serve the owner of an NFT by sending an NFT to their wallet. So, we're seeing a little bit of progress

in how maybe at least to serve somebody but there are pretty significant challenges in trying to identify who registered that blockchain domain name. So, there's a significant amount of frustration from brand owners.

I think at this point, we have not seen a significant amount of misuse of web3 domain names, but that's only because most of the major brands are not fully playing in the blockchain space yet. They're not really engaging with their customers in crypto and other blockchain transactions. But the big fear is that when that starts to happen and consumers are going to expect that a brand owns brand.crypto or brand.wallet. And so, there's going to be an enormous potential for misuse there with possibly not a lot of abilities to do anything about it to the extent that the metaverse ever becomes more of a reality, it's very likely that people will be using potentially blockchain domain names as identifiers in these meta virtual spaces as well. This creates just another potential for misuse and confusion in these spaces that brand owners are very concerned about. What was your other question?

ALISA HEAVER: For the record, the other question was new gTLDs in the next round.

MARC TRACHTENBERG: So, what are brand owners think about that?

OWEN FLETCHER: Yes.

MARC TRACHTENBERG: So, I think the major concern from brand owners with respect to the next round is some of them I think maybe viewed this as an opportunity to get a brand TLD that they couldn't in the first round, but I think probably the majority of brand owners are very concerned about the even further proliferation of the namespace. I know the first round created a huge squatting problem and a huge abuse problem that brand owners are still dealing with. And there's a concern that having another round is just going to exacerbate that problem.

We already know that a number of people and entities are planning to apply for strings and have some sort of integration into web3. And so, I think this even further exacerbates that problem where not only do you have a proliferation of TLDs and potentially abusive domain names in the traditional DNS namespace, but now this connects to and possibly expands into the web3 universe as well which makes the problem even worse.

ALISA HEAVER: Thank you, Marc. So, over to Swapneel. With regards to responsible integration between blockchain identifiers and the DNS, what would that look like and what are some of the new things that might allow people to do with the DNS domain names?

SWAPNEEL SHETH: Thank you. So, I think certainly what we're seeing is certainly there's interest in using DNS domain names for these new use cases in blockchains and decentralized applications. We call this chain of

thought DNS integrations because it allows existing DNS domain names to be used for new use cases within these emerging applications.

At Verisign, we are supportive of Internet identifiers managed by the multistakeholder model with well-defined policies and procedures, and that's the ICANN global DNS root. And so, we think that DNS domain names are suitable for these new applications and use cases within these decentralized and blockchain applications. And so, yeah, I think what we need to do as a community is to come together and work on and create these standards and best practices for responsible integrations, DNS integrations into blockchain applications or decentralized applications.

So, what do I mean by responsible? I think any responsible integration should ensure consistency of ownership, right? So, we want to make sure that the registrant or an authorized party by the registrant is the only one that controls the linkage or association of the DNS domain name with the blockchain address. So, we all know DNS domain name goes through life cycle. So, DNS domain name is registered, but then it can be transferred to other registrants. It can expire. It can be deleted. And so, when that happens, when the state of a DNS domain name changes, a responsible DNS integration should make sure that the state is replicated exactly across all the integrations, including the new and emerging applications such as blockchains.

Third is that the DNS integration should ensure alignment of policies. So, DNS community, we've come up with certain policies and standards and we want to make sure that when we do these integrations, that integrations are aligned with the policies that we have for DNS domain

names. And last but not least, it's a catch all which is we want to make sure that we are extending the utility of DNS domain name, but we want to make sure that what works today doesn't break. And so, those are sort of certain criteria that we think that there's opportunities for us to be able to create these standards together and pave the way forward for evolving DNS domain names into new use cases and applications.

But turning back to your second question which was, what are these new applications or uses? So, yes, we have been discussing some of those since this morning. One of the common ones being using DNS domain names to identify new wallets, digital wallets to make it easy for transferring cryptocurrencies or NFTs and what have you. DNS domain names can be used to identify smart contract, they can be used to identify IPFS websites as we talked about this morning. We're also seeing new protocols being worked on in the web3 world even within W3C like DIDs, decentralized identifiers and activity protocols for social networks.

Let me give you an example. One of the examples of new upcoming social network that we have seen is Bluesky. What's interesting about Bluesky is they allow you to bring your custom DNS domain name that can act as your identity within the social platform. You can, of course, use your domain name. A lot of experiments around logging in with domain names. Whereas today you log in with Facebook identity or Google identity. I mean, there are experiments where they allow you to log in via DNS domain names. So, overall, I think what we are seeing is a trend towards using-- all these are experiments towards using DNS domain names as the universal identifier.

OWEN FLETCHER: Thank you. Ray, I would like to turn to you. You've got experience actually selling web3 domain registrations to users. And I'm just curious what your perception has been, how strong, maybe how sustainable that demand is. Who's buying these things?

RAY KING: That's a good question. I think there is demand, especially among people who believe that there might be a future. They don't know. I mean, we actually experimented quite a few years ago with dot luxe. I remember that they branded Luxe's dot L-U-X-E, lets you exchange. And we did integration where you could get your dot luxe name and then you connect it to the web3 side, and it would allow you to transfer Ethereum.

And I thought it's really cool because this gives domain names more functionality than you had prior. You can use them for more than one purpose. And I think we originally thought of it like a dual root solution, maybe multi-root, since there's so many different alternate namespaces. It's a better way of saying it. And it's hard. It was really hard to get it integrated. If you get a web3 name now and you want to publish a website, IPFS and gas fees, it's way beyond the average person to do it. So, I think that it is something that domainers are interested in because of course anything that's new that you have to get in early if you're going to really see benefit from that perspective.

So, we have people come to our site and they ask, what's this all about? So, we try and explain. We have people-- Since we also were functional

with Handshake names, we had a lot of people who had Handshake TLDs, and this requires just a moment to kind of get our heads around, but Handshake opened wide open with the exception of the existing ICANN TLDs and I think the top 100 Alexa websites. But even with that, people registered, I don't know 6 or 7 million, something like that, Handshake TLDs. And then a lot of those folks came to us and said, "Okay, now I've got dot something in the Handshake world. And would you Porkbun allowed me to sell SLDs against that TLD?"

So, that's what we did. And it's I think hard to gain any kind of momentum when there's already millions of TLDs in that space. However, it was a really cool experiment. Some of the difficulties in this space were that, because so many different people own Handshake TLDs, if a registrar like us sells SLDs against those TLDs and that TLD owner decides to do something different, like sell their TLD or do something other than support the SLDs under it, we call it like a rug pull. So, the TLD is gone then all the names just fall on the floor. It didn't actually happen for any of the ones that we worked with, but some of the other registrars had that experience and that's a pretty bad experience for users.

So, again we try very hard to explain this is experimental and maybe you don't want to build your business entirely on a web3 domain and an IPFS website but experiment alongside of us. And I do think there's a lot of interest. Did I get your question?

OWEN FLETCHER: Yeah. That's great.

RAY KING: Okay.

ALISA HEAVER: Yeah. So, thank you as well. Well, the last one in our panel. Brian, can you explain how the UDRP will be used with NameBase to address trademark concerns in blockchain identifiers? And do you think other registrars or namespaces may be interested in similar arrangements? Thanks.

BRIAN BECKHAM: Yeah. Thank you. I think I'm not admittedly the best person to answer the technical question. We are working on an FAQ. Our counterpart at NameBase was on paternity leave recently and is now back and so we're working on a Google doc. But I think on a basic level, and I also wanted to mention in the audience is Kurt Pritz who I think some of you know sitting to my back right who we're working with on the dot arts TLD which is an existing TLD, but which is doing some interesting things with kind of bridging web2 and web3. But basically, what I understand is that through the smart contract, there can be a notification to a registrant of one of these domains through the means that they've used to sign up for the registration.

And I wanted to kind of come back to Swapneel mentioned best practices in this space. And I think probably he's thinking of that from the perspective of name collisions, but also I wanted to and I know because the audience here is the GAC and what I would like to leave as a takeaway is, first of all when we started looking into this question of

can there be rights protection mechanism in these alternate root spaces, we were met with resistance from the operators of these spaces and over time, it's become clear that it is possible to have rights protection in these spaces.

So, I think that would be a core message that I want to leave with the GAC today is that rights protection is possible in these spaces. Obviously, it requires coordination as Georgia mentioned and Régis mentioned of course that from the end user perspective, accessing these spaces registering names isn't terribly straightforward today.

We've been in contact with some of the major browsers to try to keep tabs on if there are going to be evolutions in that space because I think we all recognize that this is something that can certainly change overnight. But to the extent that happens, whether it happens in the in the short term or more often the distance, obviously these are spaces which strictly speaking operate outside of the ICANN framework to the extent that they're tied back to existing web2 top-level domains. Of course, there are ICANN consensus policies like the UDRP, but ultimately, technically depending obviously of course on the different protocol, the name base TLDs that we're working with who have voluntarily adopted the UDRP are based on the Handshake protocol.

I understand there are different protocols. But ultimately the message is that it is possible to contact the registrants of domains in these TLDs and that rights protection mechanisms are possible. Obviously, that requires coordination, that requires willingness from the operators of these spaces to adopt these best practices, but ultimately, like in the early days of the UDRP, we believe that it is possible and that ultimately

this is good not only for the end users but for the operators of these spaces.

ALISA HEAVER: Thank you, Brian. We have more questions that we can ask. But if anyone else has a question, I'm really keen to open up the floor and to see if you have questions. So, raise your hand in the Zoom room or here physically and we'll give you the floor. Anyone?

OWEN FLETCHER: Not only technical questions either.

ALISA HEAVER: Exactly.

OWEN FLETCHER: Policy one, philosophical ones, we can do all of it now.

ALISA HEAVER: And there probably will be someone who says this is a question that I can answer even though it's a nontechnical one. I'm going to look to the Zoom room. Nigel?

NIGEL HICKSON: Yes. Thank you very much. And really informative session and just so important. So, congratulations for putting it on. Just a question, and I do apologize if this was answered this morning, but obviously the panelists might have a view. I mean, one of the limitations that of

course we hear about blockchain is the sort of physical, not physical but the time ability to download the appropriate browser or to ensure that the people you want to connect with are also using the similar technology. But as the mainstream browsers roll out the ability to engage in blockchain, is this going to change the dynamic of the whole model? Thanks.

ALISA HEAVER: Do you want to answer that? Yes? Okay. Go ahead.

GEORGIA OSBORN: I mean, the short answer is yes. I think a lot of people-- There has been a lot of disinterest in this space because there is this belief that until some of the mainstream browsers enable accessibility of it, then that it won't pick up in adoption, it won't pick up. So, for the earlier sessions you heard that. So, the browsers that enable it are Opera, Brave. You can do Google Chrome but with an add on or extension, and the same with Mozilla Firefox.

Is it hard? Not really. I've made a blockchain domain name website, and the paper will be up on the IPFS with the blockchain domain name website. It's oxal.crypto or oxal.blockchain using the Opera or Brave Browser. People do believe that it's not going to pick up in adoption until the mainstream browsers do something about it, and currently we don't know what their attitude is towards it. That could really change very quickly, depending on what goes on with the blockchain domain name world. So, I hope that answers your question.

MARC TRACHTENBERG: I think it's important to recognize that when domain names are first introduced, they were also difficult to use. And there was a certain learning curve. I think here, I also am quite technical. It can be really challenging to purchase NFTs, to purchase web3 domain names to use them but there's a lot of really smart people that we're working on making that simpler. And there's too much money involved and there's too many people involved for that not to happen.

And so, I think that we're going to see over the next 6 months to a year a significant decrease in the complexity and increasing the simplicity of these types of products and services as these very smart people work on this. I think for web3 domain names in particular, we've had alternative roots and alternative domain names for 20 years, but they never really had any meaningful adoption. And when you look at the numbers here, you can see that this is very different. This is a different universe. There's over 7 million of these that are registered. In some of these TLDs, there's over a million names that are registered.

And not only is there a high volume of these names that are being registered but they're actually being used. And maybe not in the same way as traditional domain names but they're being used in various transactions. And so, for some of them, there's over 10 million transactions per month. That's very significant. And as those numbers increase and the use increases and the interest increases, you're going to see browsers and other application manufacturers, I think maybe change their view on whether they want to recognize these identifiers. And it's not just browsers. It's all applications. So, if you use Microsoft Word or Google docs and you put in a domain name or URL, it

recognizes that as a domain name or URL. So, it's beyond browsers. It's all applications.

And this raises this other issue of name collision. And this is an issue that I think is going to be very important as we're coming to the next round in two years where we know for a fact that a number of these TLDs, these blockchain TLDs especially the Unstoppable ones, people are going to be applying for these in the next round. And so, as their use becomes simplified, as adoption increases of these identifiers, we're going to have a very significant technical problem in the next round which is over two years away. And during that time, I can guarantee you there's going to be huge improvements in this space. These identifiers continue to penetrate into the DNS.

Cloudflare and all sorts of other companies are creating resolvers, other ways to penetrate the DNS. We're going to have a huge problem and my message to the GAC would be that you need to encourage ICANN to start addressing this issue. I don't know what the answer is but we're not going to find the answer unless the community starts addressing this problem. And the discussion really needs to start now. And so, I hope when the GAC thinks about this later and they have their communique, that they address this issue with ICANN and really push ICANN to start addressing this issue with the community so we can start addressing this problem.

SWAPNEEL SHETH: Can I add to that too?

ALISA HEAVER: So, we have a few other questions already or people who have raised their hands. A 30-second remark. Okay.

SWAPNEEL SHETH: I'll try.

ALISA HEAVER: Okay.

SWAPNEEL SHETH: So, I was just going to add advocacy for responsible DNS integrations actually mirror the concerns that including named collisions. So, these blockchain identifiers. Now today the traditional resolvers and browsers don't support them. But that's not true with the DNS domain names in the ICANN global space. And I think by creating these responsible integrations, we can sort of mitigate these inconsistencies that we are seeing.

ALISA HEAVER: Thank you.

RAY KING: Do I get 30 seconds? My quick 30 seconds is one, yeah, the difference between this and prior alternate routes efforts is that this is already, like Marc said, really having a lot of use. And so, they're already out there. So, it's not a question of will it succeed and does it have to get adoption by the browsers to succeed. They're already succeeding. And my second point is that as a new TLD applicant prior and probably again in

the future, it would be really nice to know what ICANN stance is so we know what will be within the realm of reasonable versus maybe frowned upon.

ALISA HEAVER: Thank you. And may I ask you all to start with mentioning your name when you start because as you see, this has been attributed to Brian and clearly it was Ray speaking. So, I have a hand raised in the Zoom room. So, I'm going to go to the Zoom room first. Marco?

MARCO HOGEWONING: Thank you, Alisa. It's Marco Hogewoning for the Netherlands. And it might be perceived as a technical question. I'll try to keep it simple. What we've learned this morning is that the DNS is essentially nothing more than a system to locate a resource. You type in a URL, and you find whatever the resource it is on the internet, be it an email address where to deliver the mail or a web page in it.

I hear a lot of the people and also on this panel but also in the general discussion of the about applications. I hear web3. I already heard the metaverse. I heard several things and I want to let you onto something that also Ray said about like yeah, this allows for flexibility or multiple uses. But in my understanding, it's the DNS and there used to be a bit of a gaffe in the technical community that if you don't know where to put it, just put it in the DNS.

The DNS is flexible towards different applications. So, my question to the panel is from the perspective of the DNS simply being a system to locate a particular resource, what's the value add of putting that here?

What is the main value add of putting it in the blockchain over using an alternative system towards the DNS, apart from the obvious one that you basically pull yourself out of the DNS policy system that we currently have in place? Thank you.

ALISA HEAVER: Thank you, Marco. Anyone who wants to-- Georgia?

GEORGIA OSBORN: Thank you. I'm going to start with my name just for the record. It's Georgia Osborn. And it's a very good question. What is the value added? It's a difficult one to answer. But from what we've seen from the data and from the research that we've done and from various interviews talking to people about the value added is that with the blockchain and the IPFS, first of all it doesn't rely on the policies of ICANN or normal DNS, which means that it can change very, very quickly.

So, this is something to note with any kind of, I guess, body that takes a while to decide anything. You might have been here long enough to know that sometimes these things take time. With the blockchain domain names, it doesn't. You can do it very, very quickly with different policies around changing things for different blockchain domain names. The second thing is that you'll hear from the Unstoppable, the creator of Unstoppable on Wednesday, one of the things that I think will happen is it could be that the IPFS, the blockchain where you can put content onto the blockchain will really take off at some point in the future, but I'm not going to predict.

And if and when that happens, then there could be a lot of people who don't want to deal with any of the policies that we currently have, who want to put their content on the blockchain and not be worried about it being taken down as it's almost impossible to do. So, you have different use cases of this. In Turkey in 2017, there was a case where they put the Wikipedia onto the IPFS to prevent it from being taken down by the Turkish government. And you've got cases where people have wanted to put perhaps a website onto the IPFS with their LinkedIn bio and perhaps a crypto wallet address.

One of the cases that we sort of came up with in an emerging future situation is, so the war that we've seen between Ukraine and Russia. Ukraine had largely funded it through crypto. They put their crypto addresses on Twitter. If there was what at one point a website on the IPFS with a link to the crypto wallet, you can see that happening. So, you can see future use cases, but what I would say it's a very speculative thing. Like anything with Blockchain, we don't know is the answer. But there is some value that some people perceive and like I said, just because it's not efficient now, doesn't mean that the kids don't think it's cool.

ALISA HEAVER: Okay. Thank you. I had someone first here. Could you please identify yourself?

NASSOUR ALI: Thank you. Let me introduce myself. Mr. Nassour Ali, representing Chad. I want to first congratulate all the panelists for their

interventions. At the beginning when you said your introductions, you said that we could ask technical and nontechnical questions. Mine is technical.

Today we are all observing very rapid technical evolutions throughout the world. There is a high number of new technologies. There are basic projects for different areas, different activities. I think there is a great technological challenge that ICANN is faced with. So, this is my question. We've talked about web3, about metaverse, about artificial intelligence. I would like to know, what is the relationship between blockchain, web3, metaverse, and artificial intelligence? Thank you.

ALISA HEAVER: Régis, do you want to answer?

RÉGIS MASSÉ: Régis Massé for the record. It is actually quite funny. I will try to answer the question. We talked about web3 today, but there's a small number of people who actually are talking about web4. Web4 is into artificial intelligence, the metaverse, and it's also the internet of things. And the idea is that there are technological evolutions that happen on the DNS and have been for years, but there are imaging technologies. There is innovation and we try, we always try and have done for years to see what innovation can bring to the evolution of technology.

So, if I understand your question which is the relationship between it all, now we have a technology that may seem dated more than 40 years. We have the 25th anniversary of ICANN. It's written up there. So, these technologies might seem old. In computer science, we always need

something new. So, we try new things, we continue to try new things and we still try to hang on to the old things. So, whether or not blockchain is a real activity, of course, crypto currencies are a new activity. But things evolve, there will be new emerging ideas in the future.

I am not any stronger than my colleagues this morning to predict the future, but what I can see is that things are evolving very fast. And that technologies are changing year after year. I'll give you a simple example, so you understand what I mean. I talk with my 20-year-old son, and he says, "Every year I need to change my laptop and my phone because--" I need to change it all the time. He tells me, "No, that was less year. This is old. We are moving on to new technology." So, things are changing constantly. The issue that we have is to continue to work together, as I said earlier, and the goal is really to see how the DNS can remain stable while continuing to evolve so that we can actually collaborate and work together. And I think that's the answer to your question.

ALISA HEAVER: Thank you. Marc, do you want to add something?

MARC TRACHTENBERG: I just wanted to quickly answer the question as well. I think when you ask, what is the relationship between blockchain, web3, and the metaverse. Well, web3 is basically just blockchain-based technology. And the relationship to the metaverse is that many metaverses are virtual world of virtual reality. Many believe that the metaverse will run

on blockchain, but it doesn't necessarily have to. I mean, it could run in the DNS with traditional systems, but that is the relationship. And then artificial intelligence could interact with web3 in blockchain or in web2 in the current world.

ALISA HEAVER: Yeah. There was some-- Yeah. Okay. Can you also identify yourself?

CARLOS: Thank you. My name is Carlos and I'm from Zimbabwe. Thank you so much to each and every of the panelists for a comprehensive contribution to the subject matter that we are discussing today. I don't know who among them is going to take mine, but I want to find out what effective strategies can we employ maybe at a global level to ensure that there's unity and some kind of coordination among the blockchain domain providers. I submit.

SWAPNEEL SHETH: Yeah. And so, that goes back to the point--

ALISA HEAVER: So, Swapneel, just for the record. If you want to state your name.

SWAPNEEL SHETH: Oh sorry. Yeah. I'm Swapneel Sheth. I think your question goes back to the point I was making earlier. My point being to call for collaboration between all these communities to come together and create standards for responsible DNS integration. I mean, these

standards will not only help us pave way for evolving DNS domain names to the new use cases. In doing so, we'll also make sure that the DNS and the Internet remains secure, stable, and reliable.

OWEN FLETCHER: I'd like to follow up on that. So, does that coordination necessarily have to be voluntary? I mean, we've got this decentralized world with a bunch of different blockchain providers, right? And maybe lots of them would not be interested in this type of coordination.

SWAPNEEL SHETH: The reason why I'm bringing this up is because we see that there is interest in integrating DNS and to use DNS domain names for these new applications. So, it's just for the interested parties to come together. And rather than having custom integrations one-off integrations into DNS that may or may not have the issues that I brought up earlier, because there's certainly opportunities for us to create these standards and best practices by coming together. I think that's important critical needed again for evolving DNS domain names.

ALISA HEAVER: Thank you. Yes. Okay.

RÉGIS MASSÉ: Régis Massé. If I just add. I'll switch in English for the other part of the audience. If I just can add something that was not mentioned for the moment here. Think about some-- Okay. Continue in your government

manage your countries to promote innovation of course but think about training, training is important.

For DNS today, we've got standards, we've got DNSSEC, we've got new standards to secure the DNS, DNS of those HTTP, DNS of those TLS and some of people tells that secure DNS with DNSSEC is complicated from an administrative point of view or technical point of view. It's not easy, but as we said, technique is never easy when we start with and promote the training of the tech guys in your country is very important because it's one way to secure the DNS to fight again DNS abuse and to make our internet more secure without changing the technologies.

ALISA HEAVER: Thank you. So, we're closing the queue. I see someone with a hand up there. And I would like to ask, Marco, if he could just run his question personally as he's already had the floor.

TRACY HACKSAW: Alisa, there's a question from Tom in the chat?

ALISA HEAVER: Yeah. I'm going to do that one combined with the closing remarks. So, I had that one. And please identify yourself.

JACQUES LATOUR: Hi. Jacques Latour. I'm with the CIRA. I'm also a member of SSAC. So, the question I have is, I've been doing a lot of work with digital credential. And there's two worlds. And people use centralization and

decentralization in distress. So, in one world they think that DNS is centralized. In our world, we think we're decentralized and they are centralized. Because if I look at IPFS that centralization of resource, there's different perspective on different side.

I think what would be useful is to have a very clear position on centralization, decentralization in both worlds and make sure we align on that. And that's going to go a long way with responsible DNS integration with the IETF work we're doing and everything. So, there needs to be a top-level definition, work our way down and at least agree to agree or disagree but clarity is important.

ALISA HEAVER: Thank you. I take that was a remark and not a question. Okay. Thanks. Then we only have 3 minutes left. And we had one question in the chat, and it was regarding best practices for responsible DNS integration to web3. What role should ICANN have in this effort? Should there be PDPs or working groups formed to address? And I wanted to combine that question with what advice would you give the GAC for, well, either communique drafting or for the future and what we should do on this topic. I wanted to give each of you one minute. So, we'll run over time in 3 minutes, but I hope that's okay.

RAY KING: I'll be quick. I love the internet the way it works. Right now, the web2 version, we've worked on it for decades. And because of the consistency in One World One Internet, it's given us amazing rewards. And the web3 world it's messy and it's going to be very messy for a little

while. So, with regard to ICANN's participation in the helping us sort this out, just some clear boundaries I think would be great. And I don't know exactly where they are, but I believe that them providing that will allow us to run forward in this brave new world.

MARC TRACHTENBERG: I don't know what ICANN's role should be, but I know that it should not be ignoring this issue. I mean, this is a significant potential issue for name collision in the next round. I don't know if PDP is the right way to go but probably starting with a working group to at least address this issue and start discussions amongst the community so the community can chart a path forward and figure out what the best role would be. Maybe it's to do nothing. I don't know but we'll never know without having that discussion. And now is the time to start it.

BRIAN BECKHAM: Thank you. Brian Beckham for the record. I think if I may, my one suggestion would be these things can evolve overnight. At the same time, we're not starting from zero. And this as we all recognize both touches ICANN and outside of ICANN. So, whether for ICANN community or for the GAC, I think a suggestion would be maybe rather than PDPs and the kind of traditional ICANN way of working, a little bit like we have the public safety working group within the GAC. Maybe think about if there's again, whether in ICANN or nationally. I know there's trade groups such as INTA producing reports on this, consult, breakout into small groups. Basically, kind of to avoid getting bogged down in big structures and be nimble and as Marc said, just kind of get the conversation going.

GEORGE OSBORNE: George Osborn for the record. And thank you for the discussion. My one thing would be to listen to the community, to really listen to what they want from blockchain domain names there has been. It's a very polarizing topic and you don't easily get to the middle. And I think you got to listen to what they want from their blockchain domain names, how they're using it and to best be able to deal with this issue perhaps more coordination. But listening because these things can just happen overnight without any of us knowing that it's going on, as you can see from the graph up there. So, it's just to listen.

SWAPNEEL SHETH: Yeah. I think we all agree that we should have open communication within the ICANN community and also with the blockchain community. Bring them together, have this conversation. And from my perspective, think about how we can use DNS domain names. Integrate DNS into these applications and extend and evolve the use cases for DNS domain names, but also ask for GAC. I think one of my suggestions would be to sort of promote the multistakeholder model for DNS domain names, the ICANN's DNS root and also promote for creation of standards and best practices and policies for these DNS integrations.

RÉGIS MASSÉ: Régis Massé for the record. What can I say? We are working altogether since a long time ago to make the internet more secure, more accessible, more useful for everyone. With ICANN, we have the power to decide things, to make decisions together. We've got open

standards. We've got with the ARFCs and the IETF, we've got standards that we can define and can use to use this Internet. So, I think we have to work altogether to continue developing and securing and promoting the DNS. Sorry. And if there are a multistakeholder organization with block free, I will happy to join.

ALISA HEAVER: Okay. Thank you, all panelists. I would first want to give a big round of applause to everyone here. For our next session, we'll go in breakouts, and we'll also be discussing as a GAC, well, basically everything that we heard this morning and what does as a GAC we want to do with this information. I would actually also want to invite everyone else outside of the GAC, if they're interested to come along and listen in and even provide input to us in a smaller way.

I mean, we just heard about the multistakeholder model again. So, if we in these breakouts can delve into your knowledge and you can help us as well, I think that would be great. So, yeah, I would personally at least want to invite you all. And, yeah, thank you once again for this super informative session.

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