ICANN73 | Virtual Community Forum – GNSO: IPC Membership Meeting
Tuesday, March 8, 2022 – 16:30 to 17:30 AST

BRENDA BREWER: Good morning, good afternoon, good evening. Welcome to the Intellectual Property Constituency membership session at ICANN 73 on Tuesday, 8th March 2022 at 20:30 UTC. My name is Brenda and I am the remote participation manager for this session.

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Now I am pleased to introduce chair of IPC, Lori Schulman. Thank you.

LORI SCHULMAN: Thank you, Brenda, and thank you to IPC members, newcomers and members of the community. We're very happy to host you today at the IPC open membership session as part of ICANN 73.

This meeting is going to follow a little bit of a different format than we normally have in the IPC. Normally, we run through the business, we have a GNSO Council update, a treasurer's report, a participation report, report for working groups.

As this is an open meeting, we thought it would be much more interesting to focus on substantive issues that are top of mind in our constituency and in the community at large. I also would like to give a warm shoutout and thank you to the IPC officers who really worked so hard to get the work done. We have Brian King who is our vice president. We have Susan Payne as our secretary. We have Damon Aschraft as our treasurer. We have Flip Petillion as our GNSO councilor. We have John McElwaine as our GNSO Council. And we have Jan Janssen as our participation coordinator. These are the people that make things go and this is a wonderful time, I think, to thank them for their hard work and their time. It's a lot of time.

I had offered to report on the officers' meeting with Göran Marby. As many know, Göran meets with constituency leaders before each ICANN meeting. I unfortunately missed the meeting. I had a personal emergency. So what I'm going to do here is swap out and report on the CSG and the Board meeting. I don't know if any of you had an opportunity to hear it this morning, but there were some very interesting interactions that I thought—yeah, and Michael's putting into

the chat a reminder about NomCom. I will read that, Michael, as soon as I'm done with this very brief report about CSG and the Board.

So interesting takeaways that you might not have heard is that the ICANN Board and Org will be going back to the European data protection officers, to the European data protection board, to ask about the feasibility of creating a data agreement where ICANN could access information regarding specific complaints of abuse and whether or not they could, under GDPR, receive information from registrars and registries with personal data, provided it is limited to a single inquiry regarding abuse rather than a more generalized inquiry for auditing purposes. That's one.

The second interesting takeaway is that Göran posted a new chart today. He now has a DNS abuse tickler system. We don't know exactly the source of the chart, we don't know what it's exactly telling us, but it was displayed today and it demonstrated that DNS abuse is now going down, which is contrary to some of the data we'll be hearing later today and that we know from our own industry studies tell us something else.

So stay tuned, because the debates and discussions around data access and domain abuse continue full bore. I would like to remind everybody that our IPC GNSO councilor elections have been moved up. They will now happen at the end of March because ICANN 73 has been moved and will now happen at the end of September. So in order for a smooth transition per our bylaws, our elections are a little bit sooner than we thought, so please keep your eyes open for election announcements.

And then I do want to recognize that in the chat, Michael Graham who is a member of our Nominating Committee, and David Ashcraft as well, in fact they're Nominating Committee leadership, remind you that nominations are open for the eight NomCom positions. There's three ICANN Board position. Nominations close this Friday, so if you had somebody in mind or yourself in mind, it must be done by this Friday. Check out the NomCom page on the ICANN website.

Anne has put into the chat, "I wonder if the security threats in Göran's chart show them going down have to do with adoption of DNSSEC. Does anybody know what the definition of security threat is?"

I think that's an interesting observation, Anne. I think it would be very incumbent upon the IPC and its members to look at this chart and to analyze the information and to support it if we think it's telling the right story or to provide criticism if we think it's not telling the right story. But again, based on our own data and facts, it's very important that we make these arguments that it's based on facts, good data, and not just opinion.

With that, I'm going to go over to our GNSO councilors, Flip and John, to give us an update on what we can expect to see and hear at our ICANN 73 Council sessions.

JOHN MCELWAINE: I can probably cover it if Flip can't come on right now. So it's a pretty light agenda. We'll have no Council vote going on. There'll be some interesting discussion points though, firstly starting with a report from

the NomCom, then we're going to get into a discussion of the EPDP phase two small team update. That is the situation where the Board has requested GNSO Council to provide some input concerning the, I guess, feasibility of the SSAD model.

We're going to get an update on the SubPro ODP. There's going to be an update from the DNS abuse team, a small team that the GNSO Council has formed. And then [inaudible] dialog with global domain is probably going to be relating to the RPM phase two, I think. Flip, I don't know if you have anything to add to that.

FLIP PETILLION: No, John, thank you.

JOHN MCELWAINE: I promised Lori we'll be quick. Again, no vote, but I think we'll definitely be listening to this meeting and trying to make any points that folks want to make at these discussion topics when it comes up. Thanks.

LORI SCHULMAN: Thank you, John and Flip. I want to remind people to please look for the GNSO meetings on the ICANN schedule. Please log in if you can. Our councilors need your support. I also want to thank Griffin Barnett if he's on the call. He is the leader of our DNS abuse team, and Griffin has been working with our councilors on providing talking points and information to help them intervene positively in these GNSO discussions regarding DNS abuse.

I'm now going to flip the program over to what I think is the important, cool, fun stuff, and that is our guest speakers. We have three today: Javier Calvez who is the ICANN senior vice president and chief financial officer and responsible for implementation of many of the recommendations that come from the community. And we have Giovanni Seppia in his new role as ICANN vice president implementation operations. Many of you know Giovanni for many years at EURid. And prior to EURid, he was at ICANN. So he's coming home. And they'll be speaking about implementation of community recommendations and will clarify what Giovanni's new role is, how we can help support that role as IPC members.

And then for the second discussion, we are very please to welcome Ivett Paulovics, she's a partner at FASANO PAULOVICS and a practicing IP attorney. She's also the coauthor of the much talked about recently released EU-commissioned study on DNS abuse, and she will be here today to discuss her methodology, take your questions, and hopefully have a great discussion about how we can move forward.

And I'm going to say if you have questions, please post them in the chat. If you'd like to ask them verbally, raise your hands. I'll be mostly following the chat. I think it's going to be a little hard to see all the hands, but I'll do my best to keep t rack of both. And with that, we'll go over to Javier and Giovanni. Javier—seniority—we'll have you start first. Thank you.

XAVIER CALVEZ: Thank you, Lori. Hello everyone, and thank you very much for the invitation to speak to your group. Your interest in the topic of implementation of review recommendations is very welcome, and thank you for taking the time to speak about it and to invite us.

So quickly—and Giovanni will expand much further than I will—we created in July 2020 a new department which is the implementation operations department. That department reports to me. The purpose of the department was to establish at the time a responsibility for the implementation of nonpolicy recommendations from the community.

You probably all know that there is a responsibility within the ICANN organization for implementation of policies. This is the formally GDD team, now GDS team, which many of you already know. But there was no responsibility for recommendation implementation.

So now that's been created. That was a year and a half ago with that department. Giovanni is the head of that department since he started in early January. It took us a long time to be able to recruit someone in that position and I held that position until then. The implementation operations department has the responsibility for implementation of board-adopted recommendations. By definition, in our being very strict and clear, we apply, we implement the recommendations that the board has instructed us to implement.

Of course, with that work, we work very closely with a team that you probably already know of, who is supporting the review work while it happens by the review teams, which is a team called the review support and accountability team. And if I speak in people, it is Larisa Gurnick's

team that I think many of you probably know. Those two teams work very closely together "in tandem" to support the review process from end to end.

And I'll let Giovanni speak more specifically about how we, the implementation operations department, worked and what his responsibilities are. I'm happy to answer any questions. I'll monitor the chat if you would like, Lori, while Giovanni speaks. Thank you.

LORI SCHULMAN: Thank you, Xavier. I really appreciate you monitoring the chat. That would certainly help and I'll watch the hands. Thanks.

GIOVANNII SEPPIA: Thank you, Lori, for the opportunity to speak. I'm really happy to speak reconnect with you in my new role. As you said, we had this longstanding cooperation when I was at EURid and I'm happy to continue this dialogue and cooperation in the new role. So as Xavier just said, the implementation operations team looks after the implementation of recommendations coming from specific reviews, as well as the Workstream 2 recommendations.

And when it comes to specific reviews, those are four reviews. There are the Competition Consumer Trust and Consumer Choice Review, the Registration Directory Service Review, the Accountability and Transparency Review, as well as the Security, Stability and Resiliency review.

There are quite many recommendations we are looking after. And what it means looking after recommendation, well it means that from the moment the board approves the recommendation, we'll look after the design and the planning, scheduling, assigning the recommendation to somebody specific in the organization. And this person will look after the implementation. And then once the implementation is completed, we are going to report on the implementation, evaluate the implementation, and look after the final report for the implementation.

We have a great level of cooperation with different ICANN departments. And we also have a network of subject matter experts we can rely on whenever we need more information about specific action that is associated to a specific recommendation.

There is also the work that our department, our team is doing for the project of announcing the effectiveness of the ICANN multistakeholder model. This is something that we are working to produce an action plan, which is currently being discussed internally. And we are going to present it to the community in the coming months.

Announcing the effectiveness of the outcome and multistakeholder model comes from a paper that was distributed to the community in October 2020, and the action plan is based both on this paper and on the consultations and discussions that were held across the 2021 board at community level.

And the action plan is based on evaluating some of the initiatives and projects that are the basis of the multistakeholder model because during 2021, there was an agreement between the community and the

board that by evaluating those projects and initiatives that we can deliver, let's say we can refine them, and also in the long term, we can introduce continuous and incremental improvements to those initiatives and projects. So this is, in a nutshell, what implementation operations does. It's a coordination role that I'm leading now with the help of two members, plus we are currently looking for a fourth team member.

And we also have in over the past … I just said today during another session that during the past month I have taken note of some needs of the community. One of them is the need to see more of the progress against the implementation of the different recommendations. And this is something that I've taken duly note of these requests from the community.

And this is—let's say is going to be … This is a wish of the community that is going to be met quite soon because we are revamping the wiki pages—the community wiki pages, about specific reviews and WS2—so that the community will be able to see at a glance the progress that we have made against the different recommendation sets and their implementation rather than looking at quite long pages as they are now and at some point, finding the progress now. The future will be that you see immediately the progress against the different sets of recommendations.

I'll stop here for the moment. I'm happy to take any question or provide the additional, let's say, information—clarification about what implementation operations does. Thank you.

LORI SCHULMAN: Does anybody have any questions? If not, I have a couple that I wrote down I can start with. Okay. Thank you, Giovanni. I have a couple of questions just to clarify what sounds like a very practical and useful way to move forward with all of the work that we know needs to be done on recommendations.

So when you talk about board-adopted recommendations, then I'm presuming you are not making any differentiation from recommendations that come from the review team versus recommendations that come from a policy development process. Is that correct?

GIOVANNI SEPPIA: So the implementation operations department is in charge of looking after the implementation of nonpolicy-related recommendations. That is what the implementation operations is about. For policy-related recommendation, that is the GDS department that is looking after them, and, again, is in coordination with all ICANN functions that are supporting the implementation of those recommendations.

LORI SCHULMAN: Great. Thank you for that clarification. I was confused at the very beginning.

GIOVANNI SEPPIA: Sorry, I was not clear.

LORI SCHULMAN: That's okay because then my question would be how that might all be interconnected holistically and that might be more of a question for Xavier than you. But either one of you are welcome to field that question about how you'll actually integrate the work of what comes out of reviews versus what comes out of PDP because we know there is a difference. But in terms of the community gauging where we are, it might become a little confusing. And then I have a follow-up question.

XAVIER CALVEZ: And I see also Susan's hand up, Lori.

LORI SCHULMAN: Oh, good. Yeah, we'll go with Susan, then I'll follow up. Sure. Do you want Susan's question asked first or do you want to take mine first?

XAVIER CALVEZ: I don't think Susan's question is on the same topic. If it is, then it may be useful to have her question.

LORI SCHULMAN: Okay. Susan, yeah, sure. Please, go ahead.

SUSAN PAYNE: Okay. Thanks. Hi. So it's sort of on the same topic in the sense of where we're talking about prioritization. But really, yes. I very much echo what

Lori says. And we're really interested to understand how the work of GDS and how the work of Giovanni's team work together and particularly when we're thinking about something like the prioritization framework, which my understanding is it will cover both of those types of recommendations.

Then if the implementation of PDP recommendations and review team recommendations is a separate work effort in two different teams, then does that mean the prioritization of those efforts has to happen separately, which would seem to me to make some sense, whereas the framework seems to envisage a kind of collective prioritization? So I'm just really interested to understand how this is all going to pan together holistically.

XAVIER CALVEZ: Thank you. Let me try to take that, Lori and Susan. I think you both had the same question, I guess, more or less. And I wish the answer would be extremely simple but it's a little bit more complicated. So as we just discussed, Giovanni's team focuses on review and CCWG. And that does not overlap with the GDS team that focuses on policy implementation. That's the simple part.

The complicated part now is that there is sometimes overlap of the type of work. Let me take an example. The CCT recommendations, which is coming from a review, are very much the ballot of the type of work that the GDS team does. And therefore, the GDS team contributes as a subject matter expert to helping the implementation of those recommendations. So there could be topics that are separate, whether

policy or review, but they are supported by sometimes the same teams. So that's within the org. So that's one thing.

The other thing is in review implementation work, Giovanni's team is responsible and engaging resources across the org to implement the work. Let me take an example. WS2 recommendation on staff accountability. What Giovanni and the team does to work on the implementation of that specific recommendation is bringing in the HR troops and also sometimes our legal team members to help with designing the implementation, and then implementing the recommendations, which will then be carried out on an ongoing basis likely by the HR department and with the help of maybe a few other departments.

So Giovanni's team coordinates a lot of cross-functional efforts across the organization. My point with that is whether it's for policies or for a review or implementation work, there are some dedicated teams, and there are some teams that support both aspects. There's also one board at ICANN. There is also one management team at ICANN. So some of the resources are dedicated to either of those two fields and other resources are commonly or sharing their support to both topics.

So when it comes to prioritization—and Susan, being the representative who will participate soon to the pilot on prioritization, will be exposed to that—when it comes to prioritization, we will need to look at the fact that some of this is separate because there are dedicated resources within the organization to either of those two

topics, but also that some of the work is supported by teams who will need it to receive a certain amount of order of priority.

Now, I want to be very clear that, of course, it's not like we have to choose between policy or review implementation in any given year there. Of course, we can do work in parallel. There's many different topics being worked in parallel. And by the way, that's what we've been doing forever now. Now, the issue is that we are working along in parallel on so many different topics that there's little progress done on any given topic and that's why prioritization is going to be helpful.

But, of course, the prioritization that we're looking for is going to be particularly helpful because it will be a community prioritization. It will be the community indicating what the preference is for prioritizing the work of implementation so that then, we can align our resources to support those priorities over what may be de-prioritized in terms of timing and work, even though, of course, it stays a priority.

I hope that was helpful. I know it's not a very direct answer to your question. But when we are prioritizing the work in the future, we'll look at the entirety of the work knowing that some resources are dedicated to some parts of the work. And that will then make it easier to be able to work on things in parallel but according to the priorities that will have been determined by the community. I'll stop there and see if there's more questions. Thank you.

LORI SCHULMAN: Thank you. I'm looking for hands. I don't see any hands up, but if you don't mind, I'll flip back to Giovanni. There were two things that you mentioned, Giovanni, in discussing your work that I had some clarifying questions. You talked about assigning a task to one person to see through, which we applaud. We think it's very important to have accountability. The buck stops somewhere and the first line of dissent is always the person who's actually doing the work.

With that being said, are you assigning one report or are you assigning one time? I'm trying to figure out how those assignments will work. Will a staff member be in charge of an implementation of, let's say, an entire report, or perhaps part of a report? And then after that, I have a question about the metrics and displaying the metrics.

GIOVANNI SEPPIA: So thank you, Lori. So what we are doing is to indeed assign one implementation. So each recommendation, so implementation of each approved recommendation as a lead in the organization. So, for instance, when it comes to the WS2 recommendations, there are different leads in different departments.

And there is, for instance, somebody in the legal department who is looking after several recommendations of the WS2. And it's up to this person in the legal department to, let's say, have somebody else in the department to support the worker. But that person is the ultimate responsible for delivering on that recommendation. So our work is to coordinate the progress of the implementation of the recommendation with this specific person. And then, of course, the specific person

delegates within the department to somebody else but the person is our contact point for that specific recommendation.

So this is the process that we follow, and therefore, we do have regular weekly meetings with all those who are in charge of the different recommendations to make sure that there is progress. And if there is any doubt—sort of a barrier that prevents that the implementation of the recommendation—we would like to hear. And we would like also to support and see what else we can do.

And to anticipate your next question, we keep matrixes of each set of reviews, and the implementation of the different recommendations. So that we can have, let's say, an overview of the status of the implementation of the different recommendations, where they stand, which is the, let's say, tentative timeframe for the recommendation to be delivered—this kind of information that we have internally. And at some point, we hope that we will be able to share externally at a higher level.

So that is something that we are also working on for the wiki pages to provide this kind of information. As I said, we are discussing this internally and we'll see how to make sure that the community knows when certain recommendations can be expected to be delivered.

LORI SCHULMAN: Thank you, Giovanni. I see Nick has his hands up.

NICK WOOD: Yeah. Thank you very much. Giovanni, in the UK, there's this eclectic mix of bureaucrats and academics and the media and judges. And they're very often kind of nicknamed the blob. And they're called the blob because nothing very much ever gets done. So I've known you for a long time at EU and you've got lots of things done. And I'm just wondering how can you stop your team becoming blobbish? How are you going to actually get things done for us?

GIOVANNI SEPPIA: Thank you. Thank you, Nick. Thank you for teaching me this jargon, first of all. And secondly, trust me that we are working hard to make everything deliver. So our top priority for the fiscal year '22 and also fiscal year '23 is to deliver as much as possible on the WS2 recommendations and also on the other sets of recommendations independently from the prioritization process. As Xavier was saying, the prioritization will help ICANN Org to steer, let's say, the work. At the same time that doesn't prevent ICANN to move forward against delivering on the different recommendations.

I am a very pragmatic person. So whenever I see … As it was sent to Lori, that we have these spreadsheets that we are working internally where there are timeframes. And whenever I see that there is something that it's sort of an overview, I have some members of my team within the different ICANN departments and the different people in charge of— ICANN staff in charge of that specific recommendation—to understand what's going on and to have a talk with us because they know it's not that we are a sort of police authority.

No, that's not what we want to be. We want to be a sort of coordinator, and we want to be also somebody, a department to which ICANN staff can refer and can find support for ensuring the delivery of those recommendations. So that is, let's say, the approach we are having.

And so, again, we are working hard to catch up on the different recommendation sets. I know that there is what somebody call backlog at the same time. It's also true that there were several sets of recommendations that were all at the same time, in a short time frame, approved by the board. So it's a matter of also allocating resources and making sure that, again, we continue to deliver the ordinary work to the community while implementing the different sets of recommendations. So this is quite important to understand.

So trust me. There's not going to be any blobbish or any, let's say, roadblock. On the contrary, I will make sure that there is great progress by the end of fiscal year 2022, fiscal year '23.

LORI SCHULMAN: Well, thank you. Thank you, Xavier, and thank you, Giovani. It's great to see you in this role, Giovanni. We're very excited about it. And anything that the IPC can do to support the implementation, we're here to help. As Xavier knows, we're very engaged in ICANN governance. We like to see things moving. You can ask them about our engagement and the reserve debate several years ago. And now, we'll be in the thick of it and help ICANN where we can when it comes to implementation.

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Given the time, I'm going to say thank you to Xavier and Giovanni. And I hope we can invite you back, either at the next meeting, or a year from now, to see where we are—to see, hopefully, those dashboards up and progress made. So thank you very much. You're welcome to stay, by the way, if you'd like to hear the rest of the discussion.

But we will move on to a different topic , also of great interest to the IPC and the community At-Large. And that is, of course, the subject of DNS abuse. There was a report commissioned by the EU Commission— commissioned by the Commission—which was published on January 31st of this year.

The report has generated a lot of interest, comments, lots of back and forth about if it's helpful, not helpful, whether it understands the industry, doesn't understand the industry. We've kind of heard it all. I can say that we at the IPC are extremely grateful for the work that went into it. Several of our members were engaged in some of the workshops and some of the surveys that were put forth to gather the information. And with that, I'm going to hand it over to Ivett Paulovics to talk about her work.

IVETT PAULOVICS: Thank you very much, Lori. Thank you for having me. And due to time constraints, I will jump directly into my presentation. I will give you an overview of this very extensive study. So next slide please. Next slide, please. So the study commissioned by the European Commission, as also Lori mentioned with this kind of joke of words, set a lot of objectives to be realized and delivered.

And the first was to assess the DNS abuse phenomenon, to find a definition for it, to assess the recurring types, to identify the actors, to assess their role in the whole DNS abuse chain, to assess the magnitude, to give an overview of the policies, laws, and industry practices both at the gTLD level and the ccTLD level. And last, but not least, to assess the measures, technical and policy measures, needed to address the DNS abuse phenomenon.

Next slide, please. So only just a quick overview on the methodology because it's not possible to go into details. So we use primary research and secondary research. During the primary research, we carried out real time measurements for four months during the second quarter of 2021. We carried out surveys, in-depth interviews, and we organized workshops where, also, Lori intervened.

The real-time measurements analyzed over 2.7 million incidents and 1.6 million abused domain names using blacklist domain and Euro backlist. And we also overviewed third-party reports. Next slide, please. This study was carried out during 2021. So starting from January, we finished the work in December. And as Lori mentioned, the study was published at the end of January—31 January 2022. Next slide, please.

So the first topic is to provide a definition for DNS abuse. We analyzed all the terminologies used so far. Also, you know that there are a lot of terminologies out there. What we observed that there is an overlap between different kind of threats and it's not possible to sharply distinguish between technical and content-related threats. And the two prominent examples for that is phishing and malware.

So as you see, our definition, what we propose is quite broad. DNS abuse is any activity that makes use of domain names or DNS protocol to carry out harmful and illegal activity. So this definition includes not only the security threats but, as I mentioned, also content-related threats.

Our approach is a bottom-up approach and we distinguish between maliciously-registered domain names and compromised domain names. This latter category comprises those domain names which are registered by legitimate registrants but at a later stage compromised due to, for example, web hosting vulnerability issues. Next slide, please.

We divide the three in categories, DNS abuse. Type one is abuse related to maliciously-registered domain names. Type two abuses are related to operation of the DNS and other infrastructures. And type three is abuse related to domain names distributing malicious content. It is important to highlight that this kind of abuse may take advantage of maliciously-registered or compromised domain names. Next slide, please.

Distinguishing between these typologies and between maliciously registered and compromised domain names is necessary in order to reply to the question who should take action to mitigate DNS abuse. So in case of maliciously-registered domain names, for example, algorithmically generated domains used for command and control communication. So this would be, according to our typologies type one. We think that the best level, the best-positioned intermediaries to intervene and to mitigate DNS abuse, are at the DNS level.

Regarding malicious content, if the malicious content is distributed using a maliciously-registered domain name, for example, a cybersquatted domain name serving phishing content, in that case, in our opinion, the remediation should take place at the hosting level and also at the DNS level. So in this case, both levels are involved because otherwise, the mitigation is not effective.

Regarding the malicious content distributed using compromised domain names, so for example, a domain which was compromised—legitimately registered but then compromised and serving phishing content—in order to avoid collateral damage by taking action at DNS level, the remediation should take place at hosting level.

And in the last category, abuse-related to DNS separation—so, for example, a DDOS attack against the DNS server—all actors at the DNS level should take action. Next slide, please

 We also assess the magnitude of DNS abuse. And these slides, which are following are related only to the measurements that were carried out by us. So this figure compares the market share of five groups of TLDs with the distribution of blacklisted domains. And here we can conclude that the EU ccTLDs are the least abused in both absolute and relative terms to their market share.

In relative terms, the new gTLDs, with an estimated market share of 6.6%, are the most abused groups of TLDs. So the abuse amounts to 20.53%. The two most abused new GTLDs combined account for 41% of all abused new GTLDs. So this is to say that not all new GTLDs are responsible for such a high percentage of abuse. The next slide, please.

This slide shows the distribution of compromised and maliciously-registered domains per abuse type. And we can observe that about 25% and 41% of phishing and malware domains are presently compromised. So legitimately registered but they are sometimes compromised at hosting level. Why? The vast majority of spam and botnet command and control domains are maliciously registered. Next slide, please.

This figure shows the distribution of compromised and maliciously-registered domains per TLD type. Next slide, please. We also measured the registrar reputation. And this figure shows the registrars with the highest number of maliciously-registered domains and the corresponding abuse rates. So you can see from the slide that Namecheap suffers from the highest amount of abused domain names.

However, the top five most abused registrars account for 41% of all maliciously-registered domain names. However, on the next slide, please, you can see that in terms of abuse rates, the first two Chinese registrars have the highest abuse rate. So over 6,900 and 2,300 maliciously-registered domain names per 10,000 registrations.

Regarding the hosting provider's reputation—next slide, please—among the hosting providers, we observe a disproportionate concentration of spam domain names. And on the next slide, you can also see the targeted brands and names. We studied nearly 500,000 URLs that anti-phishing working group, phish tank, and open phish identified as phishing campaigns.

This figure shows the 30 most frequent brands and names in over 500,000 URLs that were reported. Facebook is the most targeted brand. And among the most targeted brands, there are also multiple banks— for example, Lloyds, Credit Agricole, Chase and so on. Sorry if you cannot see from the slide here but you will have all the slides and maybe it will be easier to see that data. So next slide, please.

We also analyzed the adoption of DNS security extensions and email protection protocols. And what we observed that the overall level of order of adoption of all these extension and protection protocols remains quite low. Next slide, please.

We also identified the good practices within gTLDs and also among ccTLDs. And we divided the such good practices in preventive measures, reactive measures, or those measures that have transparency and provide information to the users.

So here you can see those good practices that all of you know. For example, know your business client procedures, the employment of machine learning, predictive technologies to identify abusive registrations, incentive programs, notice and take down procedures, and even blocking services that are provided to IP owners to preventively block abusive registrations. Next slide, please.

Finally, we identified a set of 27 recommendations in six different areas in order to improve the measures to mitigate DNS abuse. Some of these recommendations, or let's say many of these recommendations, are technical. But there are also some policy recommendations. So next slide please.

Addressing registries, registrars, and resellers with these recommendations, we propose to be, for example, a standard or centralized system for abuse reporting and not only for abuse reporting but also for the release of the registration data to verify the accuracy of domain registration data through knowing your business client procedures that some of the intermediaries are already doing.

For example, EURid and also .DK is running such kind of procedures—the use of predictive algorithms to prevent abusive registration at an early stage to identify the registries, registrars and also the resellers with respect to concentration and rates of abuse and monitor their abuse rates by independent researchers. And also, to adopt sanctions and incentives. So sanctions, for example, in case of exceeding determined thresholds, to revoke accreditation, or as incentives, financial rewards for lower abuse rates. Next slide, please.

With reference to hosting providers, recommendations are similar to those of the registrars. So identifying those hosting providers who have a high concentration and rate of abuse, to monitor such rates of abuse, and also to encourage them to develop solutions to effectively curb the hosting and content abuse.

With reference to collaboration, awareness, and the knowledge building, especially at EU level, what we propose is to harmonize EU ccTLD operation by adoption of good practices—those that are already out there or by developing new good practices—to require the cooperation with the governmental institutions, law enforcement authorities, and trusted notifiers. And also to obviously encourage the

awareness raising and knowledge base being in order to make the affected parties—so all of those who are involved—aware of the existing measures that tackle DNS abuse. Next slide, please.

Yes. And this is my last slide where you can find the two links, both for the main report and for the technical reports, which contains in detail the methodology for the measurements and the results of the measurements. And, of course, you can reach out to me if you have any questions. Thank you.

LORI SCHULMAN: Thank you, Ivett. I'm going to look to the queue right now and I see Griffin Barnett has his hand raised. Griffin.

GRIFFIN BARNETT: Yeah. Thanks, Lori. Apologies for my voice. I'm getting over a sore throat. So the question that I had, Ivett, is if you can speak a little bit further to your methodology compared to some other abuse reporting methodologies or approaches that we see in the ICANN space. So, for example, we've heard your comparisons of your methodologies to ICANN's DAAR, for example. I'm wondering if you can speak a little bit to comparing and contrasting those various methodologies. Thanks.

IVETT PAULOVICS: Thank you for the question. Regarding the measurements that were directly carried out by my co-authors, the Grenoble university—so regarding technical issues—I have some difficulties to describe now

here what is the difference between the methodologies used. So if you need, we can have some clarifications at a later stage, also from the co-authors—the other co-authors, who are now involved in other sessions within these ICANN meetings so couldn't be here present.

GRIFFIN BARNETT: Thanks. Understood and happy to take that offline.

LORI SCHULMAN: Alex.

ALEX DEACON: Thanks, Lori. And yeah. Thanks for the presentation. I think along the lines—well, similar to the question that Griffin asked—I'm wondering if you've saved a snapshot of the data that you used to prepare this report. And if so, would it be possible, if there was interest, for people to look at the data and to understand the questions you were asking and how you came up with the results.

IVETT PAULOVICS: Again, what I can say here is that all the methodology regarding the tactical part is extensively described in the technical report. So for me, now it's impossible to recap all those. But tomorrow, there will be a plenary session where Maciej, my co-author, will be presenting the study and all technical issues regarding the data and methodology used for the real-time measurements. It could be clarified more in details by him.

LORI SCHULMAN: Thank you. I see Fab has a question.

FABRICIO VAYRA: Hey, Lori. Thanks so much. Hopefully you guys can hear me. So thank you for the presentation. This was great and the same with the other ones. So I asked the question earlier, having sat through some of the prior sessions where ICANN was asked about the study. And we heard that they basically said they have no opinion on the study whatsoever. But they retorted that they wondered what the EC thought of it.

And I was just wondering if there was—because to me that suggests that maybe the work, the findings, the recommendations aren't supported more broadly than the authors. And I wondered is there going to be any sort of formal support on the study, the report, the findings from the EC more broadly on this? Yeah. That's my question.

IVETT PAULOVICS: I'm not sure if this question is directly to me. I was the contractor for the European Commission. So I cannot say anything on behalf of the European Commission in this case. So I think it could be directed more to the European Commission. Of course, the study was not analyzing this phenomenon in a holistic way. So not only regarding ICANN and ICANN's remit, but in a more broader way. So there are recommendations that could be implemented also by ICANN but others—other recommendations of which probably there are many

parallel works but also at policy levels by regulators like the European Commission.

FABRICIO VAYRA: Thank you.

LORI SCHULMAN: Thank you. And I'm going to note that the European Commission welcomes public comments. They have a high-level meeting that they do—sometimes it's before, this week it's after—every ICANN meeting where global and European entities can be invited to weigh in. And Fab, I'm happy to ask that question on behalf of the IPC. I'm there representing INTA but you're an INTA member. I'm happy to convey that question at the meeting later this week.

FABRICIO VAYRA: Yeah, that would be great. Sorry. Not to hijack. But my theory is that we're going to sidestep what is really great in-depth work under sort of the guise of this isn't formerly sponsored or recognized by anybody, right, the same way that the report now is being said, "Well, this doesn't really fall within the … This doesn't really understand the ICANN," or anything like that.

And I think that that is unfortunate because the reality is that a lot of what's being recommended here , if you go down the list, is quite literally the recommendation of many working groups within ICANN for years, right? And so the fact that we have mirroring up from multiple

reports, this being the latest, that mirrors what ICANN working group recommendations just shouldn't be ignored.

LORI SCHULMAN: Thank you, Fab. I'm going to give you the last word on that, given the time. Unfortunately, I'm going to have to skip any other business. I'm going to ask if you had any other business. So please email me directly, and we will make sure to put it on the agenda or bring it to the list between now and our next meeting.

I want to thank Ivett. And I want to echo something that Fab said, that I think this is a wonderful piece of work. I think it gives us a lot of information to work with. I think the fact that the EU Commission published it in and of itself is a strong message to the community. I don't think if this report weren't up to muster or somehow didn't meet a standard requirement that they would not have published it. They have the option to publish it.

So I want to thank you again. I want to thank you for including members of the IP community in the workshops. And we are here to help. We welcome to have you back later in the year depending on developments that come out of the report. And I want to thank everybody who dialed in today. This is a long week. It's a lot of time at your computer. But it really is worth it to get this information out, to have this kind of interaction. And I want to just thank everybody and adjourn the meeting.

UNIDENTIFIED MALE: Thanks, everyone.

BRENDA BREWER: Thank you, Lori. Thank you all. Enjoy the rest of ICANN 73. And with that, this meeting is adjourned.

LORI SCHULMAN: Thank you.

BRENDA BREWER: You're welcome.

LORI SCHULMAN: As always, ICANN staff rocks. Thank you, Brenda.

BRENDA BREWER: Thank you, Lori.

UNIDENTIFIED MALE: Thanks, Brenda.

[END OF TRANSCRIPTION]