ICANN79 | CF – IANA and Customer Standing Committee Community Update Work Session
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CLAUDIA RUIZ: Hello and welcome to ccNSO IANA and Customer Standing Committee Community Update Work Session. My name is Claudia Ruiz and I, along with my colleague Susie Johnson, will be the remote participation managers for this session. Please note that this session is being recorded and is governed by the ICANN Expected Standards of Behavior. During this session questions or comments submitted in chat will be read aloud if put in the proper form as noted.

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On-site participants may pick up a receiver and use their own headphones to listen to the interpretation. Virtual participants may access the interpretation via the Zoom toolbar. Thank you and with that I will now hand the floor over to Frederico Neves, moderator for this session. Thank you.

FREDERICO NEVES: Thank you, Claudia. Welcome everyone. My name is Federico Neves. I'm the vice chair of the CSC and I will be guiding you through this session and the overview of the regarding the CSC will be I will give a brief introduction of the CSC. I will talk a little bit about our SLAs and monitoring processes and I will in the end talk from the point of view of the CSC of the current process for that we are doing in changing of a framework for amending the SLA process, SLA changes process and introducing a regular view of a full review of the SLAs as recommended by the CSC review process.

So, the mission statement of the CSC is, the CSC was proposed during the IANA transition and as you can see here in the ICANN bylaws, ICANN shall establish a customer standing committee to monitor PTI's performance under the IANA naming function contract and IANA naming function statement of work. So, the IANA transition proposal was established a charter for the CSC which includes its mission statement. The words here are replicated in 17.1 of the ICANN bylaws. So, next one please Claudia. So, the CSC in the context here you can see a few slides during the post-transition.

So, the ICANN Board has a contract with the PTI and this contract as stated with the SAW and the IFR process it governed this service that is provided by PTI to ICANN and the CSC is here as a delegate for the major customers of IANA to supervise his work on a monthly basis. So, the membership of the CSC, we have four voting members, two appointed by the RySG representing the G's, two appointed by the ccNSO and one member representing a ccTLD but a non-ccTLD member.

Currently we have none appointed and we have seven liaisons, up to seven liaisons. We currently have in six ALAC, SSAC, GNSO, GAC, the root service system advisory committee and the ESO. Currently we have no member appointed by the SSAC. One member appointed by the PTI liaison and its actually Kim and since October 2023 because of the rotation of the calls that we regularly do on the CSC we have alternates appointed now as of October 2023.

So, we can rotate our monthly calls through all the time zones so with the alternates we could cover any non-attendance by a member that eventually happens to be in the middle of the night during the call. Next one please Claudia. So, the current members representing RySG are Rick William and Dmitry Burkov. For the CCs it's Brad Carr, our current chair, and myself, Frederico Neves. The liaisons we have Holly Haish for ALAC, Milton Muller for the GNSO, Gloria Katuuku for the GAC, and Ken Hennard for the root service system advisory committee. And we have one liaison for PTI that is Amy Kramer. Next one please. Next one. So, the CSC monitoring and reports on compliance by PTI on the SLA metrics that are currently defined as an annex to the PTI contract.

So, the SLA were developed during the IANA transition and the majority of them are based on data collection done at that time. Currently we have 64 individual SLAs. They are grouped in seven groups. Technical checks, staff processing time, gTLD declarations, the processing of the LGR tables, and others. SLAs are directly related to the IANA naming function contract between ICANN and PTI. And this contract is actually currently being reviewed by the IFR2.

Next one please, Claudia. So, the PTI publishes on a monthly basis. It's on the website and is as linked in this slide. All the measurements that are have been done during the period. The monthly report is available prior to the CSC monthly meeting and is discussed by the CSC members and voted by the voting members before it's published. So, here you can see a sample of one of those reports with a summary of 100% of the SLAs met. Next one please, Claudia. And according to the percentage of SLAs that were met during the period, the text of the report will be classifying that month as the performance as excellent, satisfactory, or if it needs improvement. The majority of the months we do have an excellent performance by PTI.

Eventually we have one or another SLA that is not met, but normally the classification is even satisfactory because normally it's not a persistent problem and cause no impact to direct customers, especially the naming customers. We never had a report with the classification of needs improvement but it's here just as a sample of what could be happening in the future. Anyway, so it's 64, as I said, 64 measurements are done. If we don't meet one, the percentage will be 98.4% as stated here in this slide. But if we don't meet one of those, the report will definitely bring the explanation for what happened and this is discussed during the CSC meetings. Next one please, Claudia.

Here we have a summary of the PTI performance since it was established. The first one was October 2016 and we have it up to December 2023. As you could see here, the majority of the months the performance is excellent. Next one please, Claudia. So, SLA changes. In 2018, CSC and PTI approved a process for amending the IANA naming function SLA agreement and this was moved for the current state as an

annex of the contract. A procedure for modifying the process was amended and was done as well. The process became effective with the amendment of the IANA naming function contract in March 2019.

Next one please, Claudia. So, so far PTI and CSC have identified three SLAs which needed to be changed. Technical checks need revision to the metrics only and a new SLA for the publication of IDN LGR tables was put in place. The redefinition of ccTLD, delegation and transfer and the validation and review as well. The current status of those SLA changes, all three are completed and operational. Next one please.

So, as I mentioned during the beginning of the presentation, after the second CSC review, one of the recommendations was that we need for a regular review of the SLAs. The current 64 SLAs as documented during the IANA stewardship transition are effective since 2016. Besides the three changes that I have mentioned in the early slides, they are mostly the same as since the beginning. But the CSC, second CSC effectiveness review for ahead and because of the evolution of the routes zone management and the gap between the performance of PTI as measured through the SLAs and the result of the customer surveys. And next slide please, Claudia. It was proposed for a general review of those SLAs and currently no one is responsible for this review.

IFR looks at the performance of the naming function contract and CSC looks at PTI performance against those SLAs. CSC is mandated to ensure the continued satisfactory performance of the IANA function for the direct customers of the naming service and CSC primary interface between PTI. CSC is the primary interface between PTI and the customers. So, what is to be expected from this process? So, CSC in

close cooperation with PTI, we are developing a framework for a regular review of those SLAs. We have a requirement to involve direct customers in the process. So, this presentation is part of this outreach and the involvement of those members and we are planning to amend the process that was created in 2018.

Obviously, PTI and ICANN needs to agree to the proposed changes and this will be published in a public comment period for at least 40 days in the upcoming future. CSC, PTI and ICANN needs still to agree on the revised process documentation, taking into account the comments made by the community during this public comment period. Currently the document is in a draft state on the CSC and we expect to have it finished to be brought to PTI and afterwards to ICANN in the upcoming months. And I think that's my last slide.

Next one, Claudia. Yeah, here I'm listing a few online resources where you can find the IANA naming function contract, the bylaws with the creation of the CSC, the CSC homepage, CSC charter, our publishing guidelines where you can find the qualification for future candidates. We do actually have two of the voting members with terms ending in October and there will be a new appointment or in I think one case it's possible a reappointment by the ccNSO and the RySG. And we do definitely have attendance records for all the public meetings and those meetings are public and so all the meetings are public. So, I think that's all. Any questions or comments? So, if you don't have any questions, Kim, would you like to make any comment? So, Marilia, it's up to you now.

MARILIA HIRANO: I'm going to share the slides.

KIM DAVIES: Hi, everyone. So, this is the IANA update. Marilia and I are going to tag team on this presentation. I'll start and then hand it over to her. For those that don't know me, my name is Kim Davies and I head up the IANA team.

Next slide, please. And next slide. All right. So, just a couple of slides this time around, but dense slides just to update you on a variety of different things that are happening in the IANA that I think are of interest to the ccTLD community.

The first topic is ccTLD retirement policy implementation. I'm sure most of you are aware that the ccNSO held a PDP that resulted in a policy that governs how ccTLDs are to be retired following the removal of a country from the ISO 3166 standard. In essence, our implementation of this policy is now complete. We have posted on the website user documentation. You can see that URL there. It explains how we apply the policy as written operationally and it provides guidance on that front. Additionally, it's not actually on the slide. The implementation report being posted is now posted. So, that is somewhere on the ICANN website as well.

The last remaining sort of operationalization piece from our front is we're currently evaluating implementation as it pertains to existing cases. The next topic is our annual security audits. Every year we use a third-party auditor to look at how we implement security controls within our organization, covering two different areas. One is the key

technical systems we use to deliver the IANA functions and the other is how we administer the root zone KSK. For those key technical systems, the report was delivered by our auditors to us just a few weeks ago. And in turn, we delivered it to our key community stakeholders, which is ICANN, the RIRs, and IETF leadership just last week.

The SOC3 audit is still under completion, but usually that would finish up in the next month or two. Just for context, the SOC2 audit is confidential, so we don't publish the final report to the whole world. The SOC3 audit is public. And once we've concluded both audits, we typically do a public announcement to summarize the findings. Last year, I think we did that announcement in May. So, look forward to that summary coming out soon. One additional point I will flag on the security audit is for the next year, we are making a change to issue the key IANA systems audit as both a SOC2 and a SOC3. This will provide greater public visibility into its content. So, that will be something new that we haven't done before.

In terms of strategic planning, I did want to note that PTI, the operator of the IANA functions, has a mandate to develop its own specific strategic plan as it pertains to its delivery of the IANA functions. Because just like ICANN, we're coming up at the end of the first five-year period. We are planning to start work on developing the next five-year STRAP plan very soon. The PTI board is planning a workshop that will happen in May 2024, at which the board will start discussing that. But I think there will be plenty of opportunity for the community to contribute to that process as we go through it.

Another piece of work that is of top of mind within the IANA right now is an implementation work relating to SAC113. SAC113 is advice that the Board has accepted to create a new TLD for the purposes of private use. You might be familiar with RFC1918 address space, like the IP address 192.168.1.1 that gets used probably in your home network. This is a complementary concept that basically would set aside a particular TLD for that similar purpose. So, we've provisionally selected .internal for this purpose. What that would mean is within your home network, within your corporate network, if you had a need to name or identify devices or user namespace within that local context, you could use .internal upon adoption for that purpose.

And then lastly on this slide, I wanted to note the next round. By next round, I mean the next round of new gTLDs. I know that's not really a ccTLD topic per se, but the last time we had a new round of gTLDs, it resulted in a significant increase in the size of the root zone. I think our estimations is that the next round is likely to do the same. And I think any time the root zone has a significant change to its operational nature, I think it's of general interest to ccTLDs regardless.

So, we will keep you posted on how our development on that front goes at this time in terms of implementation, operationalization. It's still early days. A lot of what IANA will need to do would be dependent on the final construction of the applicant guidebook. The rules that will govern the next round will inform a lot of the decisions about how IANA needs to do its job when those domains are subsequently delegated.

Next slide, please. There we go. All right. And then in terms of strategic projects, and these are projects we've called out in our previous

planning as key areas of work for us. Firstly, I wanted to talk about the root zone management system. In December 2022, we launched our Next Generation Platform. I've talked about it at previous meetings. It was a complete rewrite of our system from the ground up designed to be scalable into the future.

Since we've deployed that, we started to implement sort of quality of life or functional improvements, basically being responsive to customer requirements for new or additional features. And our primary goal at the time was to implement a multi-factor authentication. Multi-factor authentication is not something we implement today. There are reasons we don't implement it today. But nonetheless, we have an SSR2 recommendation asking for us to do that. It's something that we intend to implement. But implementing it on a technical level is not actually too much of a challenge. The implementation challenge that we have relates to implementing operational procedures around how we issue these credentials, these multi-factor credentials, and even more critically, how we recover multi-factor authentication credentials.

The idea of multi-factor authentication is that it adds an additional layer of security to management of your TLD in the root zone by requiring you to provide an additional factor. That could be one of these mobile apps with a rotating number on it or a special key or a pass key that's protected with biometric ID, any number of things. And the idea is you have to have that to get access to your account. But what happens if you lose it, if you lose your phone? We need to have procedures in place to recover account access. Obviously, it's not acceptable for us to say, well, you lost your phone, so you can't manage your TLD anymore.

So, we really need to have some really robust procedures in place. And this is hard because we don't actually know the identity of a lot of our customers. A lot of our customers we know as a job title, a department name, something like that. We believe to successfully implement this technology, we need to establish a practice of personally identifying all of our customers, at least all of our customers that use multi-factor authentication.

So, as a condition of launching multi-factor authentication, we want to implement a comprehensive what's called a know your customer process, where when you enroll in multi-factor authentication, we will ask you to identify yourself to a sufficient level so that down the road, maybe years to come, if you lose your credential and you need to re-establish trust with us to get a new credential, you can prove that you're the same person that you identified yourself as in the past. To this end, we're not the only ones to do this. This is something that banks do, for example. It's a lot of high security industries do.

So, we have an external consultant helping us right now develop procedures and concepts for us to apply to the problem statement. And that's an ongoing activity right now. Because we need to develop these operational procedures, it is delaying our launch of this new capability. But again, it's not a technical delay, it's more of an operational delay to get those procedures in place. Next topic was the IANA website.

We've long wanted to make some significant improvements to the website in terms of both its appearance aesthetically, but also its operational functionality, if you will. We see that there's a lot of opportunities to improve the website experience for IANA. To that end,

we're about to launch a request for proposals to get a vendor to help us on this task. We have lots of ideas, but not a lot of web developers within our team to do it. So, we're going to need some outside help.

So, we will hopefully get them on board in the coming months. And then we're expecting to roll out those improvements over the coming year or two. We are actually actively working on enhancements specifically to the root zone database right now though, so expect some improvements on that front in a shorter time frame.

Root zone KSK rollover. I just gave a longer presentation on this in the DNSSEC workshop, so if you listen to that, my apologies for the duplication. Essentially, we're looking to change the root zone KSK in a process called a rollover. We've done this once before in 2018. We'd like to do it again. This time it's been complicated because the specialized hardware we use, the so-called hardware security modules or HSMs, the vendor that we've used ever since we started in 2010 has decided to stop manufacturing the equipment. And this means we've had to basically pause our work, identify a new vendor and start again.

So, at this stage, we've identified the new vendor and we're getting ready to start again in April. So, in April, we will generate a new KSK on this new hardware from a new vendor and that will start kind of a two-year process, essentially, that should lead to, in October of 2026, the root zone KSK changing for only the second time in history.

CLAUDIA RUIZ: Kim, can you please slow down for our interpreters, please? Thank you.

KIM DAVIES: Okay, sure. And then lastly on this slide is our root zone KSK algorithm rollover study. Today, we use the same cryptographic algorithm that we've used since 2010 and changing a cryptographic algorithm contains with it unique considerations that you wouldn't normally run into if you're just doing a rollover without an algorithm change. So, recognizing this, we convened a specialized design team that was comprised of IANA representatives, VeriSign representatives, and VeriSign has a role in root zone maintenance as well, as well as experts from the community in security and related matters. And they produced a set of draft findings. Those draft findings were put for public comment.

That public comment finished early this year and those public comments are now being digested to create the final report from that study group. These findings are too soon for us to use in the next rollover, but we expect that these findings can be applied to the next rollover, which would happen approximately three years from this year. So, in about three years' time, we expect these findings to have an impact. So, with that, that is just my update on our strategic projects and operations, and I'm going to hand the baton over to Marilia, who will talk about the IANA survey. Thank you.

MARILIA HIRANO: Thanks, Kim. Hello again. Every time I come here, I'm talking about the same topic, but I'm going to share this a little bit differently this time around. When we were in Hamburg, I came here and we talked about the survey and you guys were great. I want to say that the ccNSO

Council was the highest participation, has been the highest participation so far. So, thank you. So, today I'm going to share a little bit of preliminary results from that survey that I asked you to participate in back in October. But before that, I just wanted to bring us back to why we do the surveys that we do in IANA.

First of all, it's a contractual obligation. It is a mandate in the IANA naming functions contract, as well as in the numbering SLAs that we have. It's also a commitment to continuous improvement in our current strategic plan. We have a dedicated objective to perform qualitative and quantitative analysis and review, and that includes audit, the audit that Kim brought up, and also the survey. A little bit of background for those of you who have been involved in our work for longer than I have been with IANA, that's nine years.

In 2012, we ran our first annual satisfaction survey. That was a mandate in the NTIA contract. And then in 2013 is when we conducted our first third-party-led survey where we used ECHO research and we still use them today. At the time, participation rates averaged about 10%, and the satisfaction rates were consistently over 90% at the time every year from 2012 all the way through. We changed the approach because at that time it was a customer service satisfaction survey. So, the questions that we asked was, how was your request handled?

When you asked for us to make a change to your technical contact, for example, and we used to ask that once a year. So, a lot of times by the time the survey got to you in October, the TLD operator didn't remember which request it was, and sometimes they had multiple, as you all know. And so, the results weren't really immediate for us to act

on if somebody had an issue. So, in 2018, which was after the IANA stewardship transition, we launched a post-ticket survey so we could solve the problem that we were having. And this became the tool to measure satisfaction with the service delivery.

With that survey, the monthly participation rates averaged about 30% a month, and the monthly satisfaction rate averaged 90%. So, after we launched this survey in 2018, the annual survey focus changed from service delivery to satisfaction with our engagement efforts. And we have been running this survey, which is the same survey approach that you filled out in October of last year. The participation rates dropped a bit, and it's now averaging 7%. But the satisfaction rates, it remained consistent even after the transition, and it was still satisfaction-focused. And then once it changed to engagement, the methodology changed. And then it was over 4.0. And at this time, it was a scale of 1 to 5, and you'll see the methodology there.

In 2023, which is when you first saw the QR code format that I walked around and gave you business cards back in Hamburg if you were there, and it was also on our slide for those who were participating remotely. So, that was the first time, that is the first time because it's still open, that we ran the survey this way. So, there it is, a little bit more on the annual survey. This is just a snapshot on what you would see if you click on the-- If you start taking the survey through the QR code or through the links. The ccTLD and gTLD operators still received an email to participate. They are a segmented set of questions based on the various community groups that we service.

So, you'll see there, we have the CSE, we have the CC and GNSO councils, the CC and gTLD operators, root server operators, the trusted community representatives. We also surveyed the regional internet registries, and this year for the first time, we also invited the ASO and CAC to participate. And we just did that an hour ago. IETF leadership and the IETF community. And then for 2023, we also have the ability of serving, have a general segment where observers of sessions and interested parties in IANA who are not necessarily in one of those groups could also give us feedback on that session that they attended or any feedback that they would want to give us.

So, this started this year too. So, these are the participation rates year on year. As I said, it's pretty low for the smaller groups particularly, because these segments, as you see, CSE, it's a 12 member, including the liaisons, the ccNSO, GNSO. So, when we start seeing three people respond or four people respond in such a small group, it's difficult to measure, to make it statistically significant.

When it comes to the larger groups that still get the survey via email, the ccTLD and gTLD operators, the participation rate is actually higher than industry levels, which is about 3%. And we get higher than that every year. So, it's not as bad, but for the smaller segments, the smaller groups, we're not reaching everybody that we want to reach. And as I mentioned, the ccNSO, thank you very much, because it's 12 out of 18. And this is great for us, so I appreciate it. So, as I mentioned, we launched this How Do We Do survey in 2018. Once we resolve the request from the TLD operator, you will receive an email.

The requester will receive an email, and it's a straightforward, how was your recent request handled? And you say you were satisfied or you were not satisfied. And of course, there's an ability for you to explain, either or, if you were satisfied with what, and if you're not satisfied, you can explain what happened during the request that made you unhappy. And our staff will review and respond to you within a very small timeframe. The monthly satisfaction rate is shared on the IANA.org slash performance, as you'll see there. For January, it was 96.3. So, we normally get very high satisfaction rates, thanks to all of our customers on this survey. And here's some results over the years. So, we launched this in December of 2018.

So, the average there for 2019, 94%, with a 33.5% participation. And over the years, it stayed pretty consistent. I guess 2020, we had the highest participation rate of all the years. I guess we were all home and were online 24 hours a day. And the satisfaction rate was always over 90, as I said. Some years, very high, almost 100% there. 97.5 is very high. And it stayed consistent. So, even in a shorter survey, it's one question, we still get a lot of input from that survey. So, these are the two surveys that we run. One since 2012, and the post-ticket survey since 2018. And now we're still working on the annual survey, as I said. ASOAC and the RIRs, they just received the invite to participate when we had our session with them at 3 p. m. local time today.

So, we're still going to attempt to connect once more with the ITF community and the ITF leadership during the meeting in a couple of weeks in Australia, because we haven't really received much feedback from that group either when we tried back in November. Then the vendor will deliver the final report, which will include the satisfaction

with each theme that we have in that survey in May of 2024. And then IANA will continue to evaluate the survey approaches to try to increase that participation, especially with the smaller segments. And we're engaging with the CSE, the Customer Standing Committee, with the proposed improvements for fiscal year 25.

We're evaluating now and seeing how can we improve that, how can we make the other groups like the ccNSO. So, that's what our goal is for the coming months. And I believe that is my last slide here. Let's try again. If you have not participated yet and you're here in the room and you want to participate, here's the QR code. It's also on the slide deck that I will share with Claudia after the session so she can post to the session. And then you can take the survey there and tell your friends from the other SOs and ACs if they could participate. And we would really appreciate it. So, that is all I have. Thank you. If you have questions now for me or Kim or Fred, we're here.

STEPHEN DEERHAKE: Hi there. Thank you for both presentations, Stephen Deerhake from .as for the record. Kim, on behalf of the PDP3 Retirement Working Group, my role as chair, I just want to thank you and your team for completing the path that we set out on. I can't remember how many years ago now. So, I just want, on behalf of the group and on behalf of the ccNSO, and I think I can speak for Council as well, which I'm also a member, thank you guys, really appreciate it. And we're done.

KIM DAVIES: Thanks, Steve. And it's very much appreciated, the feedback. I think the process has been a learning experience for everyone because it was the first real ccNSO policy. So, there was a lot of frustration, I think, from all sides as the community, the board, the staff were all navigating this sort of implementation process for the very first time.

I'll say that even that implementation report was written like a long time ago and just working out where to post it on the website became a whole thing. So, at every step it just feels it's been very protracted. But I thank you for your patience and we've learned a lot that we can apply as we move forward as the ccNSO finishes more and more policy work. Thank you.

FREDERICO NEVES: We have more questions or comments? Please.

STEPHEN DEERHAKE: Kim, this is unrelated to my last comment. You mentioned that we got a hardware vendor change for the key. I assume there's been a risk assessment of some sort done with we're changing hardware, will it really work, et cetera, et cetera, and you're happy with it?

KIM DAVIES: I mean, in essence, yes. Our team has been working almost nonstop for at least six months on this project. It's been all consuming really for that team because this hardware change was unexpected and has a significant impact on our operations. We don't have the luxury of doing

nothing. So, we have had to sort of navigate through a variety of different potential options to select the best one.

But to that end, firstly, we have a very professional and experienced team that are experts in this area. But secondly, the way that Root Zone K scheme management is overseen generally is we have this concept of trusted community representatives which is a pool of around 30 to 40 people who are generally experts in their own right, each bringing different expertise. And throughout some of the key decision-making, they've been involved.

So, some of the early plans, some of the early findings that we had have been shown to them, discussed with them. We're not finished completing and ratifying all the decisions just yet. We have what's called our policy management authority meeting just next week to sort of review the nuances of the policy changes that are required. And when I mean policy here, I don't mean sort of ICANN policy. I mean the specific rules around cryptographic key governance that we have a whole process around as well.

So, I think the whole nature of going through this evaluation process is a risk-based assessment. I mean, the whole exercise in managing the KSK is risk-based as well. We're trying to minimize risk to the security of the key. And that's kind of underlying every decision we make really. But I think this has been well considered, certainly done on an aggressive timeline as well. Had we had the option, it would be a slower, more deliberative process. But the HSM vendor basically just announced we're not making them anymore. And this is the result of that. Thank you.

STEPHEN DEERHAKE: Any more questions or comments? I would just like to add something of what Kim just said. This is even not something that will have a direct impact in the near future. It's more than one year ahead that we will start to see changes in this area. So, it's something that is being planned way ahead of the event. So, no biggie. So, any other questions or comments? So, I would like to thank everyone. And this session is adjourned.

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