
ICANN81 | AGM – IANA in 2030
Monday, November 11, 2024 – 15:00 to 16:00 TRT

AMY CREAMER:

Hello and welcome to IANA in 2030. My name is Amy Creamer and I am a participation manager for this session. Please note that this session is being recorded. It is governed by the ICANN Expected Standards of Behavior and the ICANN Community Anti-Harassment Policy.

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I will now hand the floor over to Kim Davies.

KIM DAVIES:

Thank you. So again, welcome to everyone in the room, here and online. This session is a discussion about IANA, what we've been doing recently, and what we plan to do over the next five years. My name is Kim Davies. I'm the Vice-President of IANA Services for ICANN and the President of PTI. To my left is Marilia Hirano, who is our Director of Strategic Programs. Today we're going to spend an hour reviewing this topic, and towards the end of the session we're really looking forward to your feedback. Hopefully we can get some interaction going. It'd be very helpful to hear what you have to think on this topic.

Note: The following is the output resulting from transcribing an audio file into a word/text document. Although the transcription is largely accurate, in some cases may be incomplete or inaccurate due to inaudible passages and grammatical corrections. It is posted as an aid to the original audio file, but should not be treated as an authoritative record.

So, next slide please. So essentially we're going to divide the presentation into about three sections. Firstly, for those not quite familiar with the scope of the IANA functions, I wanted to explain a little bit about what they are and how important they are to day-to-day operation of the Internet. We're then going to talk about our last five years, covering our previous strategic planning period, what we've done, what we haven't done, lessons learned, things like that. And then we're going to finish on a reflection on what we need to do over the next five years.

Next slide, please. So when it comes to the IANA functions, many of you will know some parts of the IANA functions, but few people know the entire breadth of the IANA functions. One way to illustrate where IANA plays a role is to contemplate regular activity that all of us do every day, which is visiting a web page. When you visit a web page, some of the identifiers that you might use in doing so are visible to you. You might be familiar with IANA's role in them, such as domain names, but under the curtain, there are a lot more identifiers where IANA plays an equally important role in ensuring the transaction works as you would expect.

Next slide, please. So if we start by looking at a web browser and we think about the address that we might type in to navigate to a particular web page, you'll be familiar with this construct, HTTPS:// (in this case) identifiernews.com. So identifiernews.com is the domain name. That's the human-readable address that most people are familiar with navigating the Internet with. But there is actually another identifier here in this example, which is the HTTPS. HTTPS has a particular meaning. It is what is referred to as a URI scheme. And essentially what that does

is it tells your web browser what kind of connection technology should be used to access the resource.

Next slide, please. When you type in a domain name, the domain name in and of itself doesn't get you to connect to the location on the Internet that would have the information that you're looking for. That domain name needs to be converted into a unique number that identifies the exact location on the network where that resource is located. We refer to these identifiers as IP addresses. And essentially each public-facing resource on the Internet has one of these allocated to them.

Next slide, please. Now, there are literally billions and billions of devices on the Internet. Knowing what network path to take to get from one device to another would be a very difficult problem if you had to know individually the path to every single device at one time. So to make this navigation of connecting networks to each other a lot simpler, essentially groups of devices are collected together in what I like to refer to as neighborhoods. So each neighborhood (it might be a data center, it might be an ISP, it might be a company network) have all those devices aggregated through the same sort of network connectivity. We refer to these groupings as autonomous systems.

Next slide, please. Now, when you connect to a server somewhere on the Internet, servers can perform multiple purposes. They might be a web server, they might receive email, they might be a file sharing, like a network file share in an office. It could provide all sorts of different functionality. When a connection is made to an individual server, the way it's discerned what type of connection it is and what kind of communication needs to happen is through two concepts. One is called

a port number and one is called a service name. And through some combination of those two, the connection is made so that communication can be established.

Next slide. Now, if we think about a webpage, a webpage is full of all sorts of different content. Usually sometimes there's videos, pictures, pictures, interactive elements, texts, attachments, you name it. How do all those pieces come back and how does the web browser know what to do with which piece of information? There is a tagging system called media types that is associated with each piece of a web page. Those media types help the web browser understand what to do with each part of the transmission.

Next slide, please. Now, also in the transmission are headers, and what headers do is express additional information associated with the request. One such piece of information is language preference. So if you have your laptop or computer device configured for English, generally speaking, the other site, if it understands multiple languages, will return an English version back to you. If, however, it's configured for Turkish as a preference, and the web server has content in Turkish, Turkish will be presented to you instead. This is done by communicating in the headers what the language preferences are for an individual browsing device.

Next slide, please. So what I've done just now is just walked you through, I think, roughly nine different identifiers that were used in the context of just that one single interaction, connecting to a web server and getting a web page back. We talked about the domain name, we talked about URI scheme, we talked about the IP address, the AS

number, service name, port numbers, media type, header field and language tag. And that is not a comprehensive list. There's all sorts of other interactions that are happening sort of even lower in the, in the stack, so to speak, that are required to work for that transaction to be successful.

Next slide, please. So what do these all have in common? For the Internet to work in the way we expect, all those identifiers need to be coordinated in the same way, globally. Each of those elements I just mentioned need to have a common globally consistent definition. If one of those tags would have a different meaning in a different part of the world, or a different meaning depending on which network you're on, you wouldn't have the interoperability that we all expect from the Internet. We expect that when we're here in Istanbul and we type in a web address, we're going to get the same page with the same content as if we visited it from our home location.

And essentially, IANA's responsibility at its core is to make sure that global coordination happens. IANA is designed to be the global record keeper for ensuring that all the allocations made in all these different types of identifiers is globally consistent. And I'm going to walk through in a bit more detail about how we do that.

So the IANA functions themselves are very closely tied to ICANN, but they do predate ICANN. In fact, the IANA functions really date back to the very early origins of the Internet. As a team of researchers who were inventing the Internet in the late '60s and early '70s Jon Postel, the founder of IANA, was sort of the informal record keeper for that research project. He took the notes to note down what had been allocated to

who, and over time that role grew. The actual term IANA came later on, but it started as an individual and grew into a function as the Internet grew as well.

Now, ICANN was created in 1998, and the primary reason ICANN was created was to be the institutional home of IANA. Up until that point, it was still personally operated by Jon Postel. At that point he had a team underneath him. It was done under the auspices of contracts with the US government, but nonetheless it was a recognition that there needed to be a specialized organization designed to be the home of the IANA functions.

And the IANA team doesn't do this in isolation. IANA's job is to implement policies that are being developed by the multistakeholder community, many of which are represented at the ICANN meeting this week.

Next slide, please. So this is just a taste of some of the identifiers that we manage. I'm not sure if anyone has any guesses as to how many different types of identifiers we operate, but rather than polling the audience, I'll tell you it's somewhere of the magnitude of three and a half thousand registries, most of which I could not recite to you. I wouldn't expect anyone to do so. Now, there are some high-profile registries there, no doubt. You're familiar with domain names, you're familiar with IP addresses, but many of these have very specialized applications they use somewhere in the network, or for very specialty applications, but nonetheless still have that essential property for which, without global coordination and consistency, that protocol or that technology is just not going to work. So this is just a sampling of

some of the identifiers that we manage, but certainly it is not an exhaustive list.

Next slide, please. Now, for many of these identifiers that we manage, the people who really know what they're about fall into two categories. One is standards developers, essentially the inventors of the underlying technology. We work with the inventors of technology, particularly in the context of the Internet Engineering Task Force, the IETF. This is the preeminent standards body for Internet technologies. It is there where standards are developed and the role of IANA is defined for any individual technical standard. But what we also work with is software implementers, the people that take those standards and turn them into running code. So they're really the primary two audiences for many of these kinds of identifiers. It's not that you as an end user or you as a network operator would necessarily need to involve yourself in many of the identifier types that we administer. In the context of the IETF, we're part of the standards process, and each author develops essentially a section of every technical standard that directly pertains to IANA. It explains how we should do our job, it explains the registration policies, things like that.

Next slide, please. Now, I mentioned that most registries are pretty straightforward[:] software vendors, standards implementers. And to clarify, they just come directly to IANA with their needs. We have a direct dialogue, one-to-one, with these implementers in the context of administering those standards.

However, there are some very special identifiers, domain names, obviously, IP addresses and those autonomous system numbers where

their breadth is huge, the number of them is huge. And if you want a domain name (I think you all know this), you don't just go directly to IANA and ask for a domain name. That might have been the case in the early 1980s, but it's certainly not the case today. What domain names and IP addresses and autonomous system numbers have in common is that IANA does still retain overall responsibility for the namespace, but we do not make direct allocation to end users. Instead, all of these identifiers have a hierarchical delegation model. In essence, IANA is responsible for the very top level of the namespace or the address space, but we delegate significant responsibility to other parties. In the case of the domain name system, each top-level domain is operated by an entity. IANA is responsible for delegating responsibility for that entity, and they're responsible for delegating further and further down the DNS tree.

Similarly, for IP addresses, with a few exceptions that are very special, no one comes to IANA directly to get an IP address. Instead, what we do is we allocate very large blocks to regional Internet registries. They in turn, in each region depicted on the on the slide, have allocation policies that govern how IP addresses to be distributed, for example, to network operators in that particular region.

And ICANN and our constituent bodies set the policy here. So it's not that the policies for these particular systems comes from the IETF directly. The IETF sets the technical parameters around how DNS or Internet routing works, but the allocation methodology for these hierarchies are set in this instance by ICANN and its constituent stakeholder communities.

Next slide, please. So, operationally complex registries are what I wanted to mention. So a lot of the registries I've mentioned are relatively simple to administer. Again, a lot of it involves the technical standards community that works with IANA directly, but some of them have a significant operational dimension to them. You know, the DNS root zone itself is one of the most critical aspects of day-to-day Internet function. This is why we have this big constellation of root servers, root server operators, that administer them to handle the sheer load of traffic that the root zone gets for day-to-day operations of the Internet.

And we have a significant operational burden too. We have systems and tools and processes to support the DNS root zone in order to communicate with our customers, to communicate with the dissemination of the root zone, and also to be operationally available. We need to have a 24/7 capability, because if there's a problem with a top-level domain, it's essential we rectify it immediately.

Another area where we have particular operational complexity is around the cryptographic keys that are used to sign the root zone. These cryptographic keys are stored in specialized facilities that have many layers of security because at the end of the day, these cryptographic keys control trust for the entire domain name system. And so it is really critical that we protect these in a fortified way. But most importantly, we need to manage these keys in a way that maintains the trust of the community.

So we do this in a pretty novel way, which is that we have these very public key ceremonies where we invite security experts from around the world to participate in the operation of this key. We in fact live stream

it on YouTube and we have people following along remotely as well. But in essence we do have a significant number of registries we maintain where we're not just merely a record keeper, where we just maintain the official list of allocations. There is a significant operational dimension to it as well, maintaining servers, maintaining staffing, maintaining operational capacity, traveling to facilities, maintaining equipment and so on and so forth.

Next slide, please. I wanted to mention the accountability of the IANA functions. You might be thinking, "Well that sounds really important, what you do. What are the safeguards?" And what I want to share with you is there are many, many safeguards that govern the IANA functions. They start with service-level agreements with the communities that we serve. They specify things like the timeliness of our service and how the service is to be conducted. And all of those SLAs have measurements associated with them. We periodically report those measurements out to the community. There's established committees that oversee the work that we do. There's remediation and escalation procedures so that, should we [not] stray from expectations, that that can be dealt with swiftly and, if not, there'll be appropriate escalation.

We have third-party audits every year to make sure that we're following our internal procedures, that our security controls are appropriate. And we report the findings of those audits to the community. We survey our customers. We make sure that customers feel our service is appropriate, both immediately after we do transactions with our customers as well as annually. And we publish a lot of data—a lot of

data—a lot of machine readable data, so that researcher and, analysts can pore through the details and come to their own findings.

Next slide, please. So the way we conduct this is through teams within our organization. We have an operations team that essentially is involved in service delivery. They're the ones that receive customer requests, whether it's from the standards community, top-level domain administrators, what have you. Their job is to process those requests, assess them against the prevailing policies, and then maintain those essential records in association with those change requests.

Operations teams also involved in customer engagement, reporting out our performance, for example, and being involved in those oversight bodies.

We have strategic programs group within our team, and they're largely concerned with ensuring some of those accountability measures happen, but also the ongoing evolution and improvement of our services, making sure that we deliver our projects through project management, that those audits that I mentioned are conducted by this team, the risk management process, et cetera, et cetera.

And we have a technical services team. Fundamentally, IANA is a very technical function, and so we have a significant amount of resources on technical services. We have an internal development team that develops some of the software we need to do the work that we do and also operates those key-signing ceremonies I mentioned earlier. And then we have an executive leadership providing overall direction and strategy to the team.

Next slide, please. So when we look at the IANA functions in the aggregate, we tend to divide them into these three pieces. And these pieces don't necessarily line up to the way we do the work. They line up with the accountability we have to the community. We refer to protocol parameters, which is largely accountable to the IETF. We have number resources that are largely accountable to the regional Internet registries, and we have domain names, which is largely accountable to the ICANN community. But for each of these different facets of the IANA functions, there is a different accountability model in place.

Next slide, please. So now I want to talk to you a little bit about PTI. For those that are not familiar with PTI, firstly, it stands for Public Technical Identifiers. And PTI is the company that performs the IANA functions. PTI is a separate nonprofit organization from ICANN, but it is closely related to ICANN. Why does PTI exist? One of the provisions of the IANA stewardship transition that happened in 2016 was to establish PTI to perform the IANA functions. And as a consequence of that stewardship transition, PTI was established but receives all of its funding from ICANN. It's, again, not distinct from ICANN. It's closely related to ICANN.

Next slide, please. We have a team of 20 staff that do all the functions that I just mentioned, all but one based in Los Angeles, all based in California, divided into various teams. But it would be an eye test for me to read off that slide, so I'll leave it at that.

Next slide, please. PTI does have its own Board of Directors, distinct from the ICANN Board of Directors. We have five members, two of which are appointed by the ICANN Nominating Committee. The remainder are

ICANN staff, myself as PTI president. We have the ICANN CTO, the ICANN CFO, and those two NomCom appointees on the Board.

Next slide, please. So what's ICANN's role? Well, ICANN is ultimately responsible for the IANA functions. It just doesn't perform them directly. So ICANN is responsible for overseeing PTI's conduct. It contracts PTI to do all these functions. What it also does is provide us with a lot of support services. The core IANA team is involved in just delivering the IANA functions, but what we don't have is our own HR department, our own legal department, our own IT department, et cetera. So we rely upon these resources to be provided to IANA by ICANN. And what ICANN also does is operate accountability measures, things like the Customer Standing Committee, naming function reviews, the Root Zone Evolution Review Committee, things like that.

Next slide, please. All right, so that is my whirlwind tour of the IANA functions, what they do, how they work. I mean, I could talk about it all day, but we don't have the time. Hopefully, that was illuminating. But what I'm going to do now is talk about our planning processes. So, as I just mentioned a moment ago, PTI was established in 2016. And one of the requirements of the PTI bylaws and of the community is that PTI has its own strategic plan for IANA, which is its own document separate from the ICANN strategic plan. That doesn't mean to say we don't fulfill the same overall mandate of ICANN, but it is a separate document.

For the first four years, we didn't have necessarily an independent strategic plan. Instead, the first four years was really consumed with instantiating PTI as a company, implementing all those oversight mechanisms, really taking us from the old model pre-2016 to the new

model that we have today. And that took a lot of work. So the first few years were really bootstrapping a lot of the committees and resources that we rely upon today.

However, in 2020 is when we started with our first real dedicated PTI/IANA strategy. It was devised by the PTI Board of Directors with input from staff, and it was reviewed by the community at the time.

Next slide, please. So our current strategy (again, started in 2020, and it ends this year) has five focus areas. One pertains to trust; maintaining stakeholders' trust that IANA is the proper home for enabling global interoperability through unique identifier coordination. The second is security; monitor and adapt to security threats and ensure resilient and secure IANA operations. The third relates to delivery of services; continue to drive the implementation of operational initiatives to enhance the delivery of services based on the needs of the IANA customer. Fourth is to monitor the delivery and performance of the IANA functions to achieve operational excellence. And finally: to support ICANN Org in its governance efforts to sustain and improve openness, inclusivity, accountability and transparency. So that's what's in our current strategy. And I want to just finish up by walking you through how I think we've done against that strategy to date.

Next slide, please. So in terms of our operational accomplishments, I think we've had consistently high performance. In terms of our core operations, we've been rated 100% satisfactory or higher throughout the entire performance period by the Customer Standing Committee, which overviews the naming functions, and by the IANA Review Committee, which oversees the numbering functions. We've made

100% of our SLAs for the IETF which oversees the protocol parameter functions. I mentioned before that we do a lot of surveys and we've consistently received high ratings from our customers in those surveys.

Another thing we've done operationally is adapted to Covid. In 2020, when everything locked down, we really needed to make very significant changes to our operations, something that we were able to do swiftly without compromising our SLAs. Those operational events, those key-signing ceremonies, we managed to basically very quickly turn into hybrid events, which didn't compromise the security of the system.

Cross-training. Our team is more cross-trained than it's ever been, which is not to say there's not room for improvement there, but we have more staff within our team able to accomplish more tasks than before. It used to be that we had designated experts for a particular topic, but there's a lot of cross-fertilization of skillsets now.

Next slide. In terms of how we operate the root zone, which is arguably our most critical function, we've implemented a brand new next generation root zone management system. The previous system was over 20 years old and it was showing its age. We successfully rolled out a new system a few years ago. We very recently implemented multifactor authentication. So this allows TLD managers to add additional security to their accounts. We've made improvements on customer identification where we obtain identification of the customer through government issued ID. And this enables us to restore access and guarantee the integrity of their accounts in a better way.

We've redeveloped the way we do technical checks, so it's much more performant and much more agile and will enable us in the future to add more and more technical checks as the community requests them.

We have a brand new interaction model for the root zone. In the past we had what's known as an administrative contact and a technical contact. And there was always only ever two contacts for a TLD, and both were required to be involved in every single change request for that TLD. We've completely changed the model. So now TLDs can appoint any number of staff in any number of different roles. You can give certain staff limited access, you can give other staff much higher levels of access, you can configure which staff are allowed to approve which kinds of requests and so forth.

We've implemented an API, so our customers who are sophisticated (often those that manage many different TLDs) can connect to us via a programmatic interface. There's no human communication. It's just all automated through an API.

And we've significantly evolved those key ceremony operations I talked about. There's too many changes to list here, but some key things is we replaced the central equipment that we use to store those keys on very recently.

Next slide, please. In terms of our overall systems, we've invested a lot of effort into moving to modern deployment infrastructure, things like continuous integration, continuous deployment pipelines, containerization and so forth. We've implemented an RDAP server for the domains we administer and the IP addresses we administer as well.

We've made steps on workflow systems for protocol parameters that didn't exist in the past. And we've implemented post-interaction surveys that we talked about a little bit earlier.

Next slide, please. Accomplishments. In terms of our strategic programs. We've implemented project management methodology much more substantially than we have in the past. So we have a comprehensive view of all of our projects and timelines. We've added project managers to our team. At the start of the strategic plan, we have zero project managers, so we're in a much better place now. We've been working on continuous improvement. This has been part of IANA for many years, but that involves continuously looking at how we do our work, continuing to reassess if this the best way to do it, and continuing to always find opportunities to do things better.

I mentioned before those annual audits that we have a third party perform. That's a rigorous part of the work that we do. We have risk assessment and mitigation practices where we maintain a risk register. We continue to monitor risks and create action plans to mitigate those risks. And there's data privacy, making sure that we only retain the information that we need and that we're in compliance with the various policies and legal requirements.

Next slide, please. And in terms of engagement, what have we done? I think we've had comprehensive engagement in our core communities—that is to say, the ICANN community, the IETF community, regional forums, like the RIRs, like the regional TLD organizations, like some of the ICANN-convened regional forums, DNS weeks, things like that. We have full engagement with our oversight

bodies, with review teams that are convened, policy work that's relevant to IANA. We're fully engaged. We have bilateral meetings with our customers or customers-to-be all the time. We conduct webinars to spread the word as well. And we also work on awareness-building for just IANA generally (in fact, I did a little bit of this today), educational sessions informing people about what we do and how we do it. And where possible, we contribute to any strategic discussions relating to how identifiers will be operated in the future. And we do all this with a great level of transparency. Most of what AINA does is an open book. We try to be radically transparent and that's really part of our DNA.

Next slide, please. And then lastly, in terms of accomplishments, is our governance accomplishments. When PTI was created, its strategic planning cycle and its operating planning cycle was not synchronized with ICANN. So the ICANN community was asked twice a year to evaluate ICANN, distinctly from PTI. That proved to be very difficult. The community indicated it would like to review those in tandem. So we've made that adjustment, and now all of our planning cycles are lined up.

And we've been working a lot on simplification of terminology. There's a lot of words that we use that are not obviously intuitive. Some of them are required by contract, but we've been making strides in terms of simplifying the terminology so everyone understands what we do a little better.

Next slide, please. Now, we didn't do everything we set out to do, and we didn't do everything as well as we would have liked to do. And some of the key areas I wanted to highlight here is that our product delivery wasn't as fast as we would like. We have a very limited development

team. They were only able to do so much, and it meant that we couldn't accomplish everything we set out in our 2020 strategic plan.

Our ability to expand our engagement was limited. Whilst we did do a lot of engagement, it was largely with our existing customers, our existing communities. Now, Covid was a huge factor here, of course. That limited outreach for a few years, but also the increased cost of travel is a factor as well.

And new concerns have risen. The volume of requests we get from our customers keeps going up and up and up. And this means that our staff is stretched thin, and we need to find ways to address that. It results in potential lack of coverage and a lack of redundancy in the staff. And then we also need to adapt to needs which are constantly evolving as well.

Next slide, please. So you've heard enough from me. That is a tour of what we've done in the last five years and our current strategic plan. I'm now going to hand it over to my colleague Marilia, who will talk about developing our next five-year strategy. Marilia?

MARILIA HIRANO:

Thank you. Hello, everyone. So now that we talked a little bit about the history and what IANA does and what we've accomplished in the past five years, I want to pivot to the future and what should we be focusing on in the next five years.

So, recently the PTI Board and the IANA team held sessions to assess our strengths and weaknesses (and some of the areas of growth that

Kim already mentioned were identified there) and also identified opportunities and threats that could impact our operations within the next five years. We also used, of course, inputs from the recent environmental scan sessions that were conducted with the ICANN organization and the Board just to make sure that our priorities were aligned with the broader ICANN strategy.

And then after analyzing all of these data sets, the PTI Board agreed to develop a strategic roadmap that focuses on three key drivers, which is what I'm going to talk about here on the next slide. So on those three drivers, the first one is innovation. As Kim had mentioned, one of the areas of growth is the slow release of system features and upgrades. So one of our main goals here is to enhance our agility and reduce time to market for new features. We want to adapt to technological advancements and the evolving customer needs. So that's the first driver there.

The second is to continue to focus on operational excellence. This was a part of our strategy in the last strategic plan and will continue to be our focus, mainly on staff development and streamlining our processes through recognized best practices on continuous improvement.

Then last but not least is to continue to evolve our community engagement. Our main objective will be not only to maintain the good relationships we have with our oversight bodies that Kim also touched on, but also to improve our strategy and target non-traditional stakeholders, particularly in focusing on underrepresented regions.

And then on the next slides I'm going to talk about some future project examples on how we're going to achieve the strategy. We're going to continue to evolve the root zone management system and continue to implement a roadmap of enhancements based on the priorities that are identified by the community. Workflow platform for IETF interaction. Significantly enhanced website. For those of you who have been on our website or use our website, you will understand that it needs to be updated to this era. So this is our key priority. It's starting already so you'll soon see some enhancements there. DNS trust anchor rollovers. That includes the algorithm change much later in the period, but we are already working on the second key rollover, preparing for it, and it's scheduled to happen in 2026.

Focusing on the next round of gTLDs. So IANA's work doesn't start until later in the process of what you've been hearing throughout this meeting, but we are following it closely with the rest of the ICANN organization. Our work is not scheduled on the delegation site until 2027. And then greater engagement with non-traditional stakeholders. As I mentioned, that's key to our priorities for the next five years.

Next slide. So other areas of work that we will be focusing our efforts in is comprehensive cross-training and skill building. Kim also mentioned that we have already increased the team size to include project managers and continuous improvement expertise. But we are going to continue to work on cross-training the existing staff and adjusting team size because there is increased need, with the next round of being the key driver for this. We want to make sure that our team of subject matter experts have the time to focus on engagement with the community,

with our customers. But as the team, with its composition today, it's very difficult for them to do the day-to-day operations and also serve as SMEs in project-based work. So that's a priority for us. Work with other ICANN departments and community organizations. So this is partnering with the Global Stakeholder Engagement Team, the government engagement teams within ICANN to help us augment the engagement opportunities that we have.

Next slide. Okay, so you will see all of this outlined in the strategic plan that is supposed to be opening for public comment on November 26th. It will be an extended public comment because it's going to go through the holidays. So it will be open until January 29th. Some of those key priorities that I mentioned will be in the fiscal year '26 operating plan and budget which is also going to go out for public comment alongside all of the ICANN plans. And there will be community webinars on the fiscal year '26 priorities in mid-December. That's scheduled, I believe, for the 17th and 18th of December, if Becky and the planning team is here next to me. So please participate in that for both the strategic plan for PTI and the operating plan to validate what we've discussed here, what I presented here today, and make sure that we didn't miss anything because it is essential that we get input from you guys. Thank you.

So there are some preempting questions here because we did want to leave time for the group to ask questions to tell us if we're on the right track. Where do you think we need to be by 2030? And it's going to be an open discussion now. We want to give time for the group to provide the input to us too.

AMY CREAMER:

Kim, we do have one question from your previous slides in the Q&A pod. So Maxim Alzoba is asking, is PTI's RZMS system's two-factor authentication going to be separated from ICANN's authentication systems?

KIM DAVIES:

Thanks for the question. So yes, it is separate. It's not using the same methodology. And there is a particular design reason why we didn't contemplate using the same one. The Root Zone Management System is designed to operate without any external dependencies, particularly in the case of an emergency where we might need to restore access to a TLD. We don't want to be dependent on a third-party service that might actually be down as a consequence of that particular emergency. So we don't use a third-party vendor like OKTA or something like that to do our authentication. We have an in-house solution that is self-contained within the root zone management system.

So I'd like to invite anyone with questions about what IANA does or in response to the questions on the screen, please. We have 10 minutes. I'd encourage a little bit of discussion, if anyone is game. Please.

LEONARD HAUSE:

Hi, Leonard Hause with the U.S. state Department. Can you give me an example on the engagement with the non-traditional stakeholders—like one or two, maybe a top-of-mind on that, and how you plan to

select them? Thanks. By the way, thank you for the excellent presentation.

KIM DAVIES:

Yeah. So I think when we think about broadening our engagement, there's a few areas that come to mind. Firstly is that I think the kinds of customers and community that come to ICANN meetings and that come to IETF meetings are probably familiar with a lot of the things I talked about today. But there is a large number of our customers that don't have the financial ability or the wherewithal to come to these big international conferences. So we continue to try and find opportunities to reach out to them. If anything, the customers we have that we don't see often have bigger problems than the ones we see. So we'd like to continue to find ways to reach out to them.

But as another area of non-traditional engagement is, to that third question, this community is concerned with a particular set of concerns. If you're in an ICANN conference, probably you would self-identify that you're interested in domain names, for example, but there is an evolution of the Internet happening in other forums and other places that wouldn't organically be at an ICANN meeting, that wouldn't organically be at an IETF meeting. And we want to meet them where they are. And we want to continue to monitor future evolution of the Internet so that we can support those efforts, we can, where possible, encourage using this open technical basis that the Internet relies upon. And so for us that means doing some work to identify where those discussions are happening and sort of bring them in the tent, if you will.

So we wouldn't do this alone. It's with our partner organizations as well. It's not a unique effort by us. But for us to continue to be relevant, to continue to support future evolution of the Internet, we need to be at the places where that future evolutionary talk is happening.

WOLFGANG KLEINWAECHTER: Thank you. The IANA function is a key element in implementing ICANN's philosophy of "one world, one Internet." And this has worked for more than 30 years. But for more than 30 years, we have, also, development outside of the one world, one Internet. I remember the alternative route in the 90s, the [ONS] proposal by the French government and, in the [inaudible], the Chinese IP+. Now we are struggling with the Internet. How you deal with this, if you're watching from the outside? So what are the challenges that you see ahead of us in the next five years, and how do you want to deal with this? Thank you.

KIM DAVIES: I think for us you're exactly right. There's always pressures of alternative naming systems, namespaces, technologies that might be competitive and incompatible with the open standards that we all rely upon. I think what we focus ourselves in IANA on is firstly to do a good job. Like, if the IANA functions don't operate successfully, then there's less attractiveness in using them. So by having high-performance service that everyone can rely upon with strong customer satisfaction, that removes a reason not to use the IANA functions and to do it somewhere else.

Beyond that, we want to support the open Internet standards as best we can. And I think we're a part of a broader community that addresses these challenges. Again, IANA is not certainly going it alone. We're fundamentally an operational team. Our fundamental job is to do an operational task day in, day out, do it well, and maintain the confidence of the community to do that. And so I think our job primarily is to do it well and to support those broader discussions when new technologies come along. Again, how do we keep them in the tent, if you will? How do we make sure, where possible, any new technologies sort of integrate with all the existing standards that exist today?

That doesn't answer all of your question, but I think that's our area of specialty, that's our area of focus: keep the lights on, keep everything running smoothly, so there's no reason to not use IANA for the next technology.

AMY CREAMER:

Kim, we have another question from the Q&A pod from David Mackey. "You mentioned the desire for broadening engagement. What benefits do you see with this effort? What can external stakeholders do to help? Is education required to help external stakeholders understand IANA better?"

KIM DAVIES:

I think it's similar to the previous questions in that the Internet's evolving. It's not static. And one of my personal observations is a lot of the structure of the community that we have in the ICANN space today is a design that was rooted in the particular challenges of the late 1990s

when ICANN was created. You had domain names, you had IP addresses, and so forth. But the Internet continues to evolve, and IANA's mandate is for all unique identifiers. It's not just domain names, it's not just IP addresses, it's not just protocol parameters.

So to that end we want to make sure that we keep pace with future evolution, whatever that might be, provide neutral record keeping, coordination services that fit within IANA's mandate, and not make the assumption that all the work that we need to do is at the table, if you will. So we see strategically an opportunity to make sure we consider the peripheries of our communities and where new development is happening. And again, we're not doing this alone, but you know, supporting the IETF and being the right home for standards development, supporting ICANN to be the right home for naming policy and the like. We all have a role to play, but you know, we think it's important to continue to monitor those trends, to do engagement where it makes sense because I think, frankly, in my personal anecdotal experience, there's a lot of things that don't come across the radar of IETF and IANA just through lack of awareness. It's not known that it's very easy to bring your new proposal, your new concept, into our communities to realize it. So that's something I think education will help.

And also there's also the benefit of education for those that are worried that the system is not working, the system is frail or whatever, reemphasizing that, actually we have a system that's worked really well for decades, and you can have the confidence in the system. And wherever you lack that confidence, let us explain to you how we do our

work, how open and transparent all these oversight mechanisms that are in place are to give you the confidence that you might lack.

HIRO HOTTA: Hi. Thank you for a good explanation. And I'm Hiro Hotta from a TLD registry and also a root operator and also on the CSC. So congratulations for the 100% [inaudible] satisfaction from IETF aspects. But I think you didn't touch on how SLA was satisfied in the aspect of registry operators. So if you can talk a little bit about that.

KIM DAVIES: For names? Domain names?

HIRO HOTTA: Correct.

KIM DAVIES: So we have a comprehensive set of SLAs for domain names. Currently there's 64 different metrics that we've measured on on a monthly basis. To be frank, we don't 100% meet those SLAs, but in the rare cases that we don't meet an SLA, what happens is there is the Customer Standing Committee. It's comprised of our customers and community representatives. We have a monthly dialogue with that committee, and essentially when we don't meet the SLA for that particular month, we explain the context of why we didn't meet it. And that committee makes an assessment about whether there is a problem, whether there's a systemic issue or whether it's an aberration. And we get into the

technical details about what exactly happened. And so at the end of that monthly meeting, the CSC makes a determination that it's either unsatisfactory, satisfactory or, I think, excellent.

And so we've always received satisfactory or higher, which is to say that we've never had an SLA miss that the Customer Standing Committee felt was not acceptable or not explainable. A lot of our SLA misses are actually to do with server timeouts and things like that that are outside of our controls. So that's just the nature of the way the SLAs are designed. So we give the detailed data to this committee and they look at it and they work out "Yes, that was not under IANA's control. Therefore we're not concerned that this SLA wasn't met because it wasn't something IANA could really control for."

So that's the nature of the relationship. So I think, yes, we did not meet 100% of our SLAs over the five-year period, but the CSC never took issue with the exceptions that we did have.

JOHN SIHAR:

Hi, Kim. My name is John Sihar from dot-ID, PANDI [inaudible]. So speaking about the future plan of the IANA function, I think I have some talk regarding how we can keep maintaining the IANA record, especially for the TLD record. I'll suggest an idea. How do you make sure that the data on the IANA records [doesn't change?] Then maybe we can apply the blockchain technology to keep just buying the smart contract between each TLD just to maintain the TLD record. It will secure all the TLD records by the smart contract. Then we can ... You understand that

the characteristic of the blockchain is immutable and also can only change by the approval of the consent of the owner of the record.

So this is just an idea just to improve the long-term viability of your data record. Thank you.

KIM DAVIES:

Thanks for the suggestion. I will say briefly that we do try to monitor evolving technologies like distributed ledger blockchain kinds of technologies and see where there's an applicability for us. So far we've not seen something that would materially improve our operations.

I will note that the policy allows for changes to the root zone that are not consented by the TLD manager. For example, if you operate a gTLD, and you don't pay your bill, and ICANN terminates the contract with you, then ICANN has a right to revoke the gTLD. So with a lot of these systems, the complexity of the policy and when certain parties have certain rights to do things are not sort of reflected in a relatively simplistic model. So these are the kinds of considerations we'd have to have in exploring empowerment through cryptographic technologies.

JOHN SIHAR:

Do you mind if maybe later on I send you some proposal regarding that?

KIM DAVIES:

Of course.

I'll note that we're out of time. I think we have time for one more question and I'll let Marilia wrap up.

PETER VAN ROSTE:

Thanks, Kim. My name is Pedro van Roste, General Manager of CENTR, European ccTLDs. I have two points to make. The first one is congratulations indeed on the performance. It's not just CSC. I also have a total absence of complaints about IANA in my membership. The feedback from European ccTLDs is consistently very strong. So congratulations to you and your entire team.

The second point has nothing to do with the first one, but in your presentation you underline how structurally integrated IANA is in ICANN. You did mention that it's a separate legal entity, but from my perspective, the focus should be the other way around. I think it's important to keep underlining that PTI is a separate entity. As part of the IANA transition discussion, this was a structural element, I think, to make everybody feel at ease with the new setup. And while I do not foresee that that would change in our lifetimes or my career, especially given the performance rating and the transparency and the fairness of the decisions and the structural respectful processes, I do believe it's important to keep underlining that, especially in the upcoming WSIS discussions. I think it will make people feel at ease. Thanks.

KIM DAVIES:

Thanks for the feedback. I appreciate it.

MARILIA HIRANO:

So, just to end, I know that we're out of time for more feedback and questions, but if you take our annual survey, it's short questions, and

you'll have the ability to provide feedback. One of the questions we ask is on our strategic direction. So we welcome additional feedback through that mechanism too. That survey will be open until early December. So, if you think of other feedback or if you haven't had a chance today, please go ahead and help us continue to build on our strategic plan.

And with that, I think, Amy, our remote participation manager, if there are no more questions, we'll end here. Thank you very much. You can stop the recording, I guess.

KIM DAVIES:

Thank you, everyone.

[END OF TRANSCRIPTION]