

IETF117

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Plenary

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>> LARS EGGERT: All right. Let's do this. My name is Lars Eggert. I chair the IETF. Welcome to the IETF117 Plenary in San Francisco. I hope your week's been good so far. I hope it's going to get better before we fly out.

We have the usual sort of administrative reporting. As usual, there's a lot more information on the web. There's a bunch of URLs in the slide deck that you can click on if you want to know more about things.

We're at the IETF. The Note Well applies to this session and also other sessions we have here that are open, if you haven't seen this yet.

And I have a person in the queue, already.

Eric, are you testing the queue? Or are you -- he's testing the queue. Okay, good. The queue is working.

Thank you, Eric.

I feel like I'm being pen tested when I see Eric showing up in the queue. Well, so we have a bunch of conditions that apply to your participation here. Some of them are related to IPR. Some of them are related to how you conduct yourself in the session. Basically, be nice to each other and keep it technical and impersonal, if possible. If you can't, maybe you want to leave the room for a second until you can again. That would be very helpful.

And there's some other things that apply to this meeting. You're being recorded. There might even be photos taken and so on and so forth.

Meeting tips, when you join Meetecho, for those of you who are remote, your audio and video will be off when you join. And please turn them on when you get into the queue to make a comment or speak.

If you have the ability to send us video, please do. It makes it a bit more personal. If you have a headset, please use that one as well. And there's more details on Meetecho on the URL there.

As I said, we have a pretty full agenda that consists of the host presentation, which will actually just be a quick host talk, I hear. The usual report from me and the IESG. Mirja is going to talk about the IAB work, Colin about the IRTF. Martin Thomson is going to give a report on how the NomCom is doing this year. We're going to hear from the LLC from Jay and Jason. Glenn is going to talk about the Trust briefly. Warren is going to have an announcement from the NOC about doing something security related to our Wi-Fi network at future meetings.

We have two In Memoriam sessions, unfortunately.



And then we have the usual open mic sequence, this time IESG, IAB, LLC board.

Thank you, everybody, who made this meeting happen. That includes, as always, the Secretariat, the Meetecho people, the NOC for network, the LLC staff and contractors, tools team, and the people that run the hackathon. Thank you.

(applause)

>> LARS EGGERT: Right. It's my pleasure to introduce Vach Kompella from Nokia, who are the hosts. And as you know, while he makes his way up to the stage, we could not hold these meetings without continuous support from all of our hosts, especially our global hosts, which is our top-tier supporters, and Nokia is one of them and has been for a long time. I'm very happy for them to do this here.

Welcome, Vach.

(applause)

>> VACH KOMPELLA: Thanks, Lars.

And thank you, everyone. I hope you're having a great time over here. It is our pleasure to continue to support the IETF because it's been remarkable what you guys have done over the last so many years.

Clearly, the big testing time was COVID. And so congratulations on the protocols and all the work that you guys have done and, of course, to the network service operators and the application writers and all who kind of held us all together when we couldn't be together.

So I just want to give a couple of ideas. I think it's been about 15 years since the last time I came to the IETF, and so it's been a really long time. And I wanted to say a couple of things about what I learned outside of the IETF.

And the first thing I'll say is, the protocol wars are over. IP has won. IP does everything. Okay. We might have thought, you know, can we do voice? Can we do emergency calls? Can we do video? Can we do critical network infrastructure? Rail signaling? Air traffic control? Yes, you can do all of them. Okay, next question.

So after we have settled that one question, the next big thing is if we're so dependent on this network -- and I know this is going to trigger a few people -- are we doing the right things from a security point of view? Because we've now bet our entire lives on the IP network, whether it's working from home, it's going to school, it's our entertainment, it's our communications, everything, shopping, whatever. It's all on this network.



And so are we secure? And I know I haven't been to the IETF; but, you know, the features and all, the stuff that I look at as we're implementing our products seem to be oriented towards end-to-end security. But we have these -- when I talk to our customers, they talk about these large surface areas that they have to protect.

And so, you know, if I had the answer, I would start a BOF, but I want to know what you guys think about surface-to-surface security. And by that, I mean -- I'll give you an example. We see these DDoS attacks. And they launch from various networks. They're fairly small in that particular network. The aggregate of them in some network that is being targeted is pretty large.

So the target feels the pain, but the other guys, they don't do anything to protect the one guy. And so is there something we can do in terms of protocols or whatever to sort of have what I call surface-to-surface protection?

I'm just going to leave you with a few questions. I'm not going to have answers for any of this. But I think it would be worthwhile talking about this.

Security is uncomfortable when you talk to service providers, enterprises, and all. They don't want to talk about their vulnerabilities and so on. But I think this is important for us if we are really going to bet everything on this network.

The second thing I wanted to say was, I said forget about protocol wars. Protocols are dead. And, you know, I know this is not the right place to say that. But what I mean is we've solved a lot of problems, and we'll continue to solve them here, okay?

But, you know, there's so many people using the Internet, and not just the big I internet but little internets, enterprise networks, the cloud, and so on. And, you know, here, I mean, you guys are smart as heck, and you come up with all these great ideas. But all the guys who use the networks aren't necessarily that smart. Or maybe they're smart but that's not what they want to use their smarts for. The Internet is a tool for them.

And I think it's very important for us to think about how usable the Internet can be. How, from an operations point of view, for the service providers, from a usability point of view, from a consumability point of view, is the Internet that consumable?

And, again, as a simple analogy, you don't need to understand lithium ion chemistry to drive an electric car. You don't need to understand BGP route policies to use the Internet.

And I think we have solved a lot of these problems. And it's almost like coming up with methodologies -- I could say APIs, but I know you guys don't like that -- into the network so that the



network is more programmable.

May not be a task for this group. But a lot of you participate in other groups, and I think that's where we have to take all the stuff that we're doing over here to make it more accessible, to make it more usable. Then kind of what we've been doing which is the hard-core, you know, get the protocols right, make them robust, and so on.

So anyway, those two challenges, I guess, were the ones I wanted to leave you with. Think about security because I'm betting my 401(k) on this network, and think about the operations side of things. All right.

And, again, thank you for everything that you guys are doing and thank you for coming to this IETF and hope you enjoy the rest of the week.

(applause)

>> LARS EGGERT: And as usual, we have a beautiful plaque for you. I think this is actually the one you could take home, if you wanted to. As you prefer.

>> VACH KOMPELLA: I live down the street.

>> LARS EGGERT: Okay. You want to take it home?

>> VACH KOMPELLA: Thank you very much.

>> LARS EGGERT: Thanks.

(applause)

>> LARS EGGERT: So that was probably the most technical host talk we've had in a while. So you raised the bar there quite a bit.

(applause)

>> LARS EGGERT: I thanked him earlier for serving the IETF as chair for I2vpn, which my memory is very hazy of those days, but I don't think it was always the most easy of groups. So thank you for that too.

We actually have another sort of little award going to Nokia because we had the San Francisco Marathon on Saturday, and one of the Nokia engineers took a couple hours to, like, go and win the half marathon and then come back to the hackathon.

(applause)

>> LARS EGGERT: So, Sameer, I don't know if you're in the room. If you are in the room, we have a little something for you. You are.

(applause)



>> LARS EGGERT: So our awesome Secretariat made a finisher medal for him that's slightly oversized, I think.

(applause)

>> LARS EGGERT: Congratulations. Thank you. So, you know, those of you who are sending us engineers, so not only do you need to become a global host, you also if you can, win the medal for the IETF.

I also hear we bought all your photos, and you get the code and you can, like, get them from online. If you haven't gotten the code yet, we're going to send them to you.

Thank you.

I mean, I heard about this. I'm like, Wow. That is an achievement. I did one marathon a long time ago, and I didn't do any one after. And there's a reason for that. So highest respects for -- I'm not going to compute the factor that I was slower than you.

Right. That brings us to the IESG and Chair report, which is pretty uneventful this time. So we're going to talk a little bit about participant statistics, as usual, what the plan is for future meetings.

So spoiler alert, Jay, later on, is going to tell you where we're going to be next spring. So stick around for that part. I'm not going to tell you but Jay will. There's a bunch of things on IESG statements and announcements and more things we have online.

Those are the registration numbers, and this is the first time, as always, that I see this slide. So we had 1,550 registrations that combines both on-site and remote. On-site, we are just at 900, which is pretty much 100 fewer than we had in Yokohama at this time. So this is, like, personally making me sad because I heard anecdotally, from many people, that they thought, you know, lots of engineers were going to come because we're in the Bay Area where lots of companies have sites. Didn't work out for some reason. We would love to hear from those of you who might have colleagues that couldn't come or didn't come, why that is, because we obviously have another meeting coming up and we also need to have a chat about, you know, what do we do about meetings in the U.S. because they were the ones that oftentimes actually generated a profit for us. And this one won't, as far as I know, and that is sad.

We have a fee-waiver program, as usual. The remote fee waivers are pretty robustly used. We granted almost 360. Almost 250 were actually used. The chairs of the various task forces, meaning me and Colin, have a discretionary budget, and we offer in-person fee waivers out of those. I had 10 requests. I granted nine. Colin had 13. He also granted nine. And for the EIW workshop which doesn't



usually happen at every meeting but happens at the summer one, there was another 10 for the workshop.

And we had 423 hackathon registrations, and I don't remember a curve, but that's almost half the overall in-person attendees. So I'm pretty sure this is a pretty high fraction. So well done to those of you who go to the hackathon, and especially those of you who arrange the hackathon for us. It's becoming more and more popular for good reasons, because open source and open standards usually go hand-in-hand these days. And it's a very robust program that we're running on Saturdays and Sundays. So thanks for that.

And as you might see for the pie chart, right, most people from the U.S. Quite a few from China, Germany, and other European countries. And a lot you in the heavy tail from all over the world.

This is just a breakdown for on-site versus remote. You see we have -- although we're in the U.S., we still have almost a quarter -- or actually more than a quarter of remote participants also from the U.S. So that might be an indication that a lot of companies are struggling a little bit with travel this year. My company is no exception here. But the in-person attendance is, you know, the usual, like slightly over half from the local place.

This used to be the slide where we talked about, you know, how many people did we have and what were the COVID cases. And this slide doesn't show the COVID cases, but as far as I know, we only had one report. And you have to take it with a huge chunk of salt because very few people are testing, as far as I know, and probably even fewer people are reporting.

So to the one of you who did do that and then, hopefully, followed procedures to isolate yourself, thank you very much.

But our proposal, I think, from the IESG and LLC would be that because those numbers are getting more and more shaky going forward, we are not going to report those anymore. That's the proposal. But what we did do this time, breaking it down in the post-COVID period for the meetings that we had into on-site and remote. So you can see the total, we're actually pretty close to Yokohama, which was the last meeting; but we're trending a little bit down on the in-person participants. And those are the numbers for the IETF117, the numbers, as of today, while the numbers for the other meetings are the final numbers. So, you know, we might still pick up a few more registrations tomorrow and Friday. The IESG made a bunch of statements and announcements on EtherTypes, on the RFC Series Working Group Chair. We currently have a feedback period out for the few of you who volunteered to be considered for the role of Chair. Thank you very much for volunteering.



If those of you who haven't seen this yet, you know, want to give us feedback on the candidates, that would be appreciated. I think we're going to try and do a selection in August. I'm looking at Amy. Amy is nodding. So in August, excellent. So you have a little bit of time to send us your feedback. Do it now while you're sitting there being bored.

We had an appeal since IETF116. So that's not great, right? The good news is some of us on the IESG met with Ted and Ellen earlier today or yesterday. My memory is very hazy. But I think we have a way forward to address the content of the appeal. So we're probably not going to go exactly with the proposed remedy that was in the appeal, but we have an alternative that seems to be acceptable to the people who raised that.

And thank you very much for raising this. You know, the appeal is not necessarily a bad thing. It helps us fix things that we missed. And in this case, it turns out we missed a few things. We're hoping that the new statement on interim meetings is going to be serving the community better.

There's lots more from other bodies in the Datatracker. And, as always, there's an IETF blog on the bottom that Greg runs for us. If you want to post a blog, talk to Greg.

Greg, where are you? Over here.

He's always happy if an author comes and wants to work with him.

You don't need to be a longtime participant. We oftentimes now also have, like, newcomers that only attended a few times that wanted to share their impressions. And that's always very useful to those of us who have been here a long time and don't quite remember how it was. It really helps us improve the newcomer experience and also, you know, gives us feedback what we're offering actually works for those of you who are new to the organization.

Right. We also had childcare yet again. We've done this ever since we came out of COVID, I think.

And the LLC is planning to continue this forward, so you can plan on this being available at every IETF. And we do hope you plan to use this. I hear the kids had a great time.

I think we had, I think, eight families and nine children this time. So pretty robust take-up. And there's a few quotes that I also haven't seen yet, but I talked to some people personally, and I heard from at least two of them that basically the childcare enabled them, or at least made it much, much easier, to participate here. So we're very happy to arrange that for people that can use it, and we're also very happy for those companies and organizations that support the childcare to make that available, because there is a cost associated to that, obviously, right?

Mirja, this brings us to the IAB and Mirja's part of the report. She's coming over there.



And for those of you who are going to be on stage later, some of these glasses are not clean. So take a look at your glass before you use it. Just like insider tip.

>> MIRJA KÜHLEWIND: Thank you, Lars, for this good advice. My name is Mirja Kühlewind. I'm the chair of the IAB. And I give you a very short report, hopefully.

As always, you find the whole report online. It's uploaded in the proceedings and also on the IAB web page.

I just want to highlight quickly that we recently published two new RFCs giving some guidance about protocol design and protocol maintenance, which I hope you enjoy reading; and if you have any comments, let us know.

You can send any kind of feedbacks to us, to the IAB directly, or to me, if you want to talk to me or any other IAB member.

The other exciting thing that's going on is that we currently have two proposed programs that we want to open. IAB programs are a venue where we want to tackle a technical topic that we think is important. But we also realize that, like, we are only a small set of experts, and we need external or other experts to help us. So our IAB technical programs are mainly for the community or to engage with the community to figure out topics.

Specifically, the first program is tackling the topic on identity management. We're trying to figure out to understand the landscape there, trying to figure out if there's any work that's missing in the IETF or if we can kind of connect the dots better together. And if we do that, the work will go into the IETF, or wherever it belongs. But this is just a venue to have the discussion and get understanding in the space.

And the other program will be the E-Impact program. It's also proposed at the moment. It's the outcome of a workshop that we had end of last year. And there was a lot of input, a lot of interest, a lot of discussion still going on. So we believe there is a need for discussion in the community.

Both of these programs are proposed programs. So we didn't decide on them yet, but I think it's likely we will have them because so far, we got very positive feedback. But there's still time to give us feedback, if you would like to give us feedback. Either send it publicly to the architecture discuss list, or for E-Impact, there's actually a separate mailing list, or send it directly to the IAB. Or, again, talk to me or any other IAB member.

And this is the part where I say thank you for those people who are serving in different positions. So one of the responsibilities of the IAB is to care about appointments. Very exciting. Very important as



well.

And this time, we appointed Suzanne Wolf for the ICANN Nominating Committee. Big thanks for that because that is a commitment where you really have to be engaged and costs a lot of time.

We had really good candidates this time, and Suzanne is actually more than qualified.

And thank you for doing it. I'm not sure if she's here, but you can see her picture.

And then we reappointed Laura Thomson for the ISOC Board of Trustees. That was also interesting because this is a position where we usually get a couple of appointments and we didn't. We only had her name. But this is because everybody is so happy with her. So we were really happy to reappoint her. She's doing a really great job over there representing the IETF and also helping ISOC with her expertise. So big thanks to her for continuing there.

Also, we appointed Russ and Barry -- reappointed Russ and Barry for the CCG and Tim April to the RZERC.

Thank you, everybody, for serving.

(applause)

>> MIRJA KÜHLEWIND: So one little thing on my own as I'm standing here, Lars already mentioned blog posts. And I recently wrote two blog posts which were a little bit related to what I'm doing in my IAB position, but I wrote them also with my personal thought on it or whatever. The two blog posts, one was about the last IETF meeting, so providing a little bit of a summary there. And the other one was about our retreat.

I'm not sure if you read them. If you didn't, maybe you want to read them. But if you read them, I would really be interested if this was, like, helpful for you or if you would have expected something else or if you think leadership or we should do this in general, if this is a good way to communicate to you. Or if you would like to see something really different, let me know as well. So if you have any comments on the blog post, just send them to me personally or to the IAB and the IESG because, you know, that's kind of the framework around where I wrote those blog posts. Or you can also contact Greg Wood, who is our Director of Communications.

And then just quickly, one last point, so we had a couple of IAB meetings around this week. The IAB open meeting was yesterday. It was really nice. We had a very good invited talk. If you haven't been there, just watch the recording. I really enjoyed it.

There was the EM program meeting this morning. You also missed that one, but there's a mailing list you can join, get the minutes, whatever. And then there's the Liaison Coordinator office hours



tomorrow at lunch. That's a new thing we started last time. This is just like a venue you can talk to the Liaison Coordinators in case you have any questions about liaison management, because there usually are questions. So just come by if you have any questions.

Thank you.

>> LARS EGGERT: That brings us to Colin.

(applause)

>> COLIN PERKINS: Thank you. That's better.

Okay. So as many of you will know, in addition to the research groups in the IETF, we also run the Applied Networking Research Prize. The Applied Networking Research Prize is awarded to recognize the best recent results in applied networking. It's awarded to recognize interesting new research, interesting new ideas which may be of potential relevance to the Internet standards community. And it's awarded to recognize upcoming people who we believe are likely to have an impact on the Internet standards and technologies going forward.

I'm very pleased to award this from the IRTF. We are very pleased to receive the support from the Internet Society, from Comcast, and NBCUniversal to make this possible.

Very pleased to announce that we will be making two ANRP awards tomorrow. The first of which will go to Simon Scherrer for his work on modeling the BBR Congestion Control algorithm, which is a paper from the IMC conference last year.

The second will go to Siva Kakarla for his work on automatically verifying the correctness of nameserver mutations.

Really fantastic talks, I expect. Really interesting papers. You can find the papers and the slides up on the website already. Please do come along to the IETF Open Meeting tomorrow to see those talks. And if you can't make it, the recordings will also be on YouTube.

In addition, we also run the Applied Networking Research Workshop. This an annual event which we run colocating with the July IETF meeting every year, organized in cooperation with ACM SIGCOMM. This took place Monday this year -- Monday this week. This year? Very pleased to say we got a fantastic program of talks, fantastic program of papers. Really nice panel discussion. Really nice keynotes.

Very much thanks to Francis Yan from Microsoft, Maria Apostolaki from Princeton for organizing the workshop this year. Thank you to all the reviewers, the authors, and the speakers.

Thank you, also, to the travel grant sponsors: Akamai, Comcast, and Netflix. We were able to bring



a significant number of people to the workshop due to their very generous travel support this year. And, again, if you missed the workshop, I know there was pretty good attendance. The papers are all online, linked from the URL on the slide, and the talks are all up on YouTube.

And I'm also pleased to announce the Applied Networking Research Workshop 2024 will take place this time next year. I think it's the Vancouver IETF meeting next year. The organizers will be Simone Ferlin from Red Hat, Ignacio Castro from Queen Mary University of London. Nothing on the website yet, but do look at the URL there in the next few weeks for details of that workshop.

And with that, I think I'm done. Thank you.

(applause)

>> LARS EGGERT: Next up, we have Martin Thomson, who is the NomCom chair for this cycle.

>> MARTIN THOMSON: Yeah. Next slide. There we are.

So the role of a NomCom is somewhat important in this organization. We're responsible for selecting leadership. All the fine folks you've seen up here today and many more you will see later.

This year, we have the usual number of IAB members up for reappointment. Two ART Area Directors and the usual slate. So expect to see an announcement within the next few days or weeks that outline how you can nominate people for these positions. And I encourage you to find as many people as you can to nominate and also encourage them to accept their nomination, please.

As of this morning, we have seated the NomCom. After some multiple rounds of selections, we have -- everyone has managed to confirm their availability. So you can see those people listed on the slide there.

If you have any information that you would like to share with the NomCom, you can share it with me or any of the people that are on this screen. The people on the right will be the ones that are making decisions about who gets to be nominated.

To give you a rough idea of where we expect things to be going in the next little while, the NomCom seated literally today. And between now and the next IETF meeting, we expect to do most of the bulk of the work that you expect of a NomCom, which will be asking for people to volunteer for the positions that we're looking to fill, asking those people about themselves and learning more about them through your feedback and interviews. And we hope to be able to send our nominations to the confirming bodies sometime around the end of the year. And ultimately the people will form part of those bodies and be seated at the March IETF next year.

That's all I have. Thank you very much.



(applause)

>> LARS EGGERT: Thank you.

Well, while Martin makes his way off the stage, can I ask those on the NomCom to stand up so the community can take a look and identify you as people. Thank you.

(applause)

>> LARS EGGERT: Okay. This brings us to the LLC part of the Plenary. Jay is here in-person. Jason is online for his section as Chair.

>> JAY DALEY: Thank you. As someone who currently lives in the UK, I can say, without a trace of sarcasm, how pleasant it is to be in such a warm and sunny city.

(laughter)

>> JAY DALEY: So welcome to IETF117.

And starting off with our wonderful host, Nokia, who has been the host, also sponsored the fantastic welcome reception last night.

Thank you very much, Nokia.

(applause)

>> JAY DALEY: We're going to obviously set expectations now about all other welcome receptions. They need to be as good as last night. And, hopefully, all of the global hosts will rise to that, and they will get better each time. At least, that would be good.

We are doing very well now with our set of Gold sponsors. So we have these three categories: Diversity and inclusion, running code, and gold sustainability. And we have some committed companies now who are very much supporting us here. So thank you very much to these four companies for their support.

(applause)

>> JAY DALEY: We, obviously, are very keen to take people's money, so we have lots of different categories here as well. We're not going to go as far as the others and have everything branded.

Don't worry. This is probably the set that we're going to work with.

So we have our Silver sponsors, and we have some Bronze sponsors. So we've really got -- The one thing we'll notice later is this is a relatively narrow set of industries when we talk about it. But from that set of industries, we have some very committed people.

So thank you very much, also, to our Silver and Bronze sponsors.

(applause)



>> JAY DALEY: Now we've been poor at recognizing this in the past. We have a number of companies that sponsor us with donations of equipment, services, connectivity, food, various other things.

And so, for example, I'm just going to call out Callas on this. So they have, for many years, donated to us a lovely piece of PDF service software that is used by the RPC to generate the PDFs and things. It's several thousand dollars a year, but they have been doing it for many years and not asking anything and giving us full support. So these companies here really do deserve some thanks because they're donating directly to the IETF for all the support.

Thank you.

(applause)

>> JAY DALEY: Now, this organization, this meeting would not run without the many generous volunteers. There was a very successful and very well-attended code sprint on Saturday. And the NOC, as you can see, has increased in size. And the average age, I believe, has finally dropped below 50. So we're doing very well now with that.

So thank you, everyone, to all of the code volunteers, to the NOC, and the NOC organizations who support them coming along. Thank you.

(applause)

>> JAY DALEY: The team, as you know, there are a number of people involved in this. So we have the Secretariat staff who are the ones doing the bulk of the hard work, running things around. We have the Meetecho team who you won't necessarily see so much but are working from early morning right the way through, constantly watching everything and tweaking things as they go through.

We have our Tools contractors who work in the background of things.

And we have our NOC contractors, who are the ones that have to climb up, fit the things, make sure the wireless works, and all of that kind of stuff and get things to on-site.

So thank you very much to all of these people here.

(applause)

>> JAY DALEY: This is the IETF Administration LLC. This our staff. Since the last time we presented, we have two new members of staff. So we have Jennifer Richards, who is a senior developer. Jennifer has been working for us as a contractor for a number of years and is now working for us directly.



And we have Debbie Sasser, who is our Director of Finance to ensure that we keep our finances going.

Obviously, some of you are going to suggest that, you know, we're now building an empire. An empire is, like, 500 people. Don't worry. This is really not very big.

So thank you very much to all of the staff, even though I'm on the slide. Thank you.

(applause)

>> JAY DALEY: And then, finally, thank you to our global hosts. These are the ones that donate to us every year. They sign multiyear contracts, and that gives us a lot of the financial stability and the industry support that we need in order to operate and also give us a good way to be able to talk to other organizations by these organizations demonstrating their support.

So thank you very much.

(applause)

>> JAY DALEY: All right. So IETF118, later this year, will be in Prague. This is the last time we're going to go to Prague for some time. It's got too expensive for us, I suspect, for us to go some more years into the future. So I expect all of you there, everybody who's ever been to Prague, to come along, everybody that's ever been to an IETF meeting. Okay.

Ideally, if we get about 3,000, that should help cover the, you know, bills that we've had over the last few years with our other meetings. So that would be fantastic if you all come along. Thank you.

So now I'm going to talk about IETF119. Now, sorry to disappoint, Lars, but we're not going to have a spring meeting next year. No. Instead, we're going to have two summer meetings because we're going Brisbane in Australia for IETF119.

(applause)

>> JAY DALEY: And we are, obviously, very interested in hosting sponsor opportunities, both for IETF118 and IETF119.

Sorry this has taken so long. IETF119 will be in a conference center, and conference centers are just the most difficult people in the world to negotiate with. We have to make a trade-off ensuring that we can go to sufficient cities and different cities. And in order to do that, sometimes that means dealing with the devil. So that's anyway forward.

But this should be a great meeting. We have finally got everything sorted. So look forward to seeing you all there.

This is our list of upcoming meetings. The one thing you will notice is that the host column looks a



little bit stark here. We are, as you know -- I think the industry is going through a bit of a difficult patch in some places. We are relatively strongly exposed to a small number of industries. And so we are trying to expand our set of global hosts, as well, to go beyond our ordinary industries so that we can weather some storms a little bit better. But at least two of these are under discussion with people. So, hopefully, this will be filled not too far off into the distant future.

For IETF124, we are looking at North America. We have heard your concerns about visas and problems about entering the U.S. We are looking at the U.S. We are also looking at Canada, and we have looked at Mexico as well. It is -- That work is still ongoing anyway. So we will see where we end up with that.

For IETF125, in Asia, we recently did a consultation on a number of cities that we might possibly consider going to: Xinxiang, Beijing, (saying name) and Istanbul. The IETF board is still considering that; and, at some point, we'll give -- make an announcement about how we intend to go further with that one.

So that's a pretty good stack of things now. We have some, I think, organization on that as well. But we've largely caught up from the COVID issues. The rescheduled meetings are all now going to work their way through. So we can get back to an all-planning cycle for IETF meetings.

Okay. One of the goals that we have is long-term financial sustainability, and the main way we wish to do that is by growing the IETF Endowment. We have a goal of 50 million by 2027; and, currently, we're at about 4 million.

We have some donors that are giving large sums to us. So ARIN gave a large sum to us. Internet Society, of course, gives us a very large amount each year. And RIPE NCC are giving us a large donation spread over a number of years. This year we've had LACNIC give a large donation, or last year, possibly. And each of these donations is matched by the Internet Society. So that's building, you know, a healthy endowment.

Obviously, we're still 46 million short, so we do need a little bit more money, and we do have a number of ways forward on that.

Afnic, the ccTLD for France, has recently pledged 20,000 euros to the endowment. Comcast has pledged \$10,000 to the endowment. And we have raised \$4,000 from individuals. We're going to be doing some more things as well to help individuals consider supporting us as well.

So thank you to all of these people, and that's how we're growing our endowment.

Now, one of the things that we've discussed before is trying to move towards net-zero IETF



operations, and we've had a project that's been going for a little while to build a calculator that works for us. And we've now done some calculations using that for IETF116. And we are considering the options for offsets of our carbon emissions, or our equivalence of carbon emissions.

We very much recognize that this is a technical organization, and that if we went and bought financial credit somewhere and all that kind of stuff, you know, I would never hear the end of it. So we are looking at, you know, more technical-based projects and those type of things of how we can do more direct things.

If any of you have any ideas or if any of you in your organizations have experts on these types of things, we would love to talk to them and hear about those things to understand how we can do that. There is a side meeting Thursday at 8:30 where we want to talk about this more, if anyone is free to come along.

Okay. That's it for me and over to Jason Livingood, the Board Chair.

>> JASON LIVINGOOD: Great. Thanks very much. Wish I could be there in-person, but I'm very busy doing some technical trials right now. So look forward to the next meeting.

Next slide, please.

(laughter)

>> JAY DALEY: Sorry. We were gossiping. Sorry.

(laughter)

>> JASON LIVINGOOD: So no changes here on the Board members. These remain the same.

Next slide.

So current work, really three key areas. We held in June, early June, a strategic planning retreat. We do this annually really just to refresh, you know, key risks to the organization, review work that's been completed, and our priorities for the coming year. And out of that, the two areas of focus that we remain, sort of, you know, keeping on the radar, one is financial focus. We've made progress there. Obviously, with Debbie joining the team, the objective there is not just fundraising progress but also the timeliness and accuracy of financial statements. And pleased to see that we're making some strides there. So that's important from our standpoint on the Board.

And then the final item is that as we look through when certain board terms were ending, it became apparent that we may have sort of a healthy number rolling off at the same time. So we're studying that to make sure we have the sort of timings correct. And, if we do, then trying to come up with some alternatives so that we don't lose a significant chunk of the Board all at one time, because that would



be disruptive for the organization. So more to come at the next meeting there, I think.

Next slide, please, Jay.

These are the upcoming board meetings. We always encourage people to come, and it's a rare thing when people actually do. But please do join. These are always open, and the majority of the agenda time is open.

Next slide.

This is the current snapshot of the fiscal year operating budget. At the bottom, you know, most of this change is a slight reversal of the investment returns just based on market conditions. Because we're not, you know, really pulling any of that funding out of our investments, you know, this isn't that important just in the same way that the losses last year when the market was down were not important because we're not actively selling those things. We're just adding to our investments. And you can take a look here at the revenues and expenses. And this is as of April, so it's just after the last meeting. You'll see this catch up and become a little bit more current over the next couple of months.

And, you know, just one note here. I think, Jay, you mentioned this earlier, and certainly Lars did when he reviewed a list of registrations by meeting. That remains challenging for us to forecast revenue around meetings because the registrations are fluctuating, and it's not apparent that we have a stable new pattern just yet.

Next slide.

And, of course, these are all of the many ways that you can contact us. Feel free to reach out if you like.

Next slide.

That's it for us. I think now we're on to Glenn Deen for the trust.

>> LARS EGGERT: Thanks, Jason and Jay.

Glenn, you're up next.

>> GLENN DEEN: Hi, everybody. I'm Glenn Deen and I'm the Chair of the IETF Trust. These are the five trustees. These are the five that are currently serving.

I don't know. I can read off their names. They're awesome people, though.

The purpose of the IETF Trust, for those who aren't familiar with us, we're somewhat unseen, typically. We have the joyful duty, the fun duty, of enforcing trademarks and holding the copyrights on all of the materials like the RFCs. So we do the IP, the intellectual property part, of the IETF to the



other IP that we all work on.

We're also pretty boring; and if we're ever exciting, we're not doing our job properly.

So the two big updates are that we have issued -- we worked with two parties, since our last time together, which were infringing upon the IETF logo. We talked to them very nicely. They talked back to us very nicely. They said, Sorry. We'll stop doing that. And we didn't have to get any lawyers involved. It was a very successful and very cooperative engagement. But we did enforce two parties. And the other thing we're doing is we're restructuring, for those that aren't aware. We are restructuring the trust from a Virginia trust into a Delaware not-for-profit corporation. We created the corporation back in December, and we are going through the process right now with the IRS to declare the 501(c)(3) nonprofit status. And once that's been granted by the IRS, we'll actually begin the nasty work of actually transferring all the licenses and assets we own over into the new entity. And so all the other gray boxes will, hopefully, start becoming green.

We have office hours tomorrow, if you want to come talk to us. We did it in Yokohama as well. Please come talk to us. I know it's in the morning. We have to get up early. It's the last day of the week, and we're all tired, but we would like to see you, if you'll come out and say hello.

Anyways, it's going to be Continental 7 around the corner. 9:30 to 10:00 a.m. tomorrow.

And, finally, if you want to get in touch with us, here's our email addresses. We also have a website. Just get us off the trustee website or this.

And that's it. Thanks.

>> LARS EGGERT: There's Martin Thomson in the queue. We don't typically do open mic for the Trust because they're very boring usually. But since everybody has been very good in staying on time, Martin, if you have a question, I'm willing to --

>> MARTIN THOMSON: I have a request for the Trust. Currently, the IETF license for RFCs for bids, the creation of derivative works outside the IETF, which would make aux (phonetic) of any of the documents produced here, impossible under those terms. I would like to request that the Trust consider loosening those terms to enable the generation of aux of work we do here.

>> GLENN DEEN: We'll think about it. That's a very complex issue. I will point out you can reproduce RFCs in their entirety. That's a granted license that everyone has. And, of course, you can use them in your work. But to create a derivative work outside the IETF gets into some interesting issues with potentially enabling other STLs to use our work without our permission. And that does create some issues.



I think we would need a larger consultation than just the trustees themselves would have to be involved in that, certainly the IESG, the IAB, and the whole community.

>> MARTIN THOMSON: Sounds like you have a good grasp of the sort of things that would need to happen. I'd like to request that you do that.

>> GLENN DEEN: We are trying to be boring, and that's going to make us very not boring.  
(laughter)

>> GLENN DEEN: So that's undermining goals.

>> LARS EGGERT: Next up, we have Warren Kumari, who is wearing the NOC hat here, I think.

>> WARREN KUMARI: So I want to make sure that we have time for open mic, so I'll go through this very quickly.

So this is a proposal from the IETF NOC which we've discussed with the IESG and LLC, and we wanted to get community feedback.

So, basically, what we would like to do is we would like to move from using 802.1x to using WPA. And a note, when I'm saying 802.1x, I'm actually meaning, you know, WPA2-Enterprise with RADIUS. And when I'm saying WPA, I'm meaning WPA2 and WPA3.

So what is the plan? It's largely this. We turn off 802.1x and we turn on WPA. And why do we want to do this?

Well, largely it's to make the user experience better. Currently, when you connect to the IETF network, you're connecting to an SSID called IETF. But 802.1x uses certificates, and so you get this certificate. And because you can't get a certificate for an SSID, the certificate is actually for services.meeting.ietf.org. And there's no real reason why your machine should trust that.

So what we had been doing is we were taking the certificate and we were publishing it on the service called 802.1x-config.org. And theory was people could install an app on their phone before they came to the meeting and download the certificate and put it in their certificate store. But as far as we could tell, nobody ever really used that, and the service went away.

So another thing we tried is we tried publishing the certificate fingerprints online and we would put them on the meeting page and we would email them out. And as far as we could tell, nobody was checking those either. And the reason for that is, for at least one meeting, and I believe a couple of meetings, the certificate fingerprints were just wrong. We updated the meeting number. We forgot to update the fingerprint. Nobody ever came along and told us, Oi, your certificate fingerprint is wrong. You're not checking them.



(laughter)

>> WARREN KUMARI: Also, increasingly, people have managed laptops and managed phones and corporate-managed devices, and they just don't have the authority to install certs. This means that, you know, people can't use 802.1x. And certain operating systems make it fairly tricky to try and configure this at all. So we're trying to make it easier for users. We usually have two or three tickets per day related to "I can't join the IETF network." Obviously, more towards the beginning of the meeting than throughout.

As an example, for Android, you have to configure around security tape, (indiscernible) method, and the phased authentication until you do systems certificates and not to verify them and then enter this long domain. That's just too hard.

So if this is such a bad idea, why did we start doing it at all? Well, when we launched 802.1x -- or I guess when we started doing 802.1x in the meeting network, it was in the days of WEP. We have now gone moving from WEP to WPA, WPA to WPA2. There's now WPA3. And we believe that WPA3 is super good enough and that WPA2 is more than good enough.

Also, over the past five or six years, there's been a huge increase for people moving to encrypted layer-three protocols, right? Everybody is running TLS. Let's Encrypt has made a huge difference with that. We'll serve things like, you know, DoH and dot and those sorts of things.

And so we believe that even if somebody was able to decrypt the wireless network, you know, there's other layers that are still encrypting the important parts of the data.

When we started this as well, we were concerned about the evil twin attack, somebody coming along and standing up a fake version of the IETF network. Seeing as people aren't trusting the certificate, we don't think that .1x is really protecting us from that. If somebody stood up a fake IETF and provided a fake cert, people would just click through it anyway.

We also had this idea that we could use 802.1x's ability to put people into different VLANs, sort of an idea that you could join a single SSID. And instead of logging in as IETF-IETF, you could log in as, for example, NAT 6-4. Imposter NAT 6-4. We never did that. Seems like it's not the feature that we necessarily need.

A couple of frequently asked questions. If we're just doing WPA2 and we use a single preshared key, probably IETF-IETF is, like, the preshared key, doesn't that mean anybody can decrypt all the traffic? Nope. The preshared key is used to derive a pairwise transport key. So same like with RADIUS, you don't use that to encrypt. You just use it to derive a key.



Also, why aren't we just going to do WPA3? It's the new hotness? Yes, it is the new hotness. Unfortunately, we tested this in the NOC, and we were just made to discover some of our devices don't actually do WPA3 yet. All of the APs and radios and stuff do, but some of our phones and laptops don't. So the actual plan is WPA3 with a fallback to WPA2. So if your device does WPA3, you'll use that. If it's not, you won't.

So basically, we think 802.1x is more fluff than it's worth, and we would like the community feedback. Not now, though, because of time. So we'll send out email to IETFannounce and attendees, I think was the list we decided, and please provide feedback there. But, basically, we think, you know, replacing .1x with WPA will make everyone's life better.

And I did that in time.

(laughter)

(applause)

>> LARS EGGERT: Thanks, Warren. I actually want to recommend we use admin-discuss for this because it's IETF notes. Nobody else can post. I can but nobody else can. And the attendees list, also, not everybody might be on it because it's per meeting. So admin discuss would be my suggestion. I got two thumbs-up from Warren, which doesn't happen very often, so excellent. Right. This brings us to a slightly sadder part of the plenary because we've had some key IETF participants pass away recently. And we have two people who knew them well that are going to say a few words about them.

I think, Barry, you're first.

>> BARRY LEIBA: Do we have slides for the two people? Oh, I go next. Oh, there it is.

Hi, I'm Barry Leiba. I'm going to say a few words about John Leslie. John was a physicist by training, actually, back in day when that's what you had to do to get a computer science degree because there weren't computer science degrees. But he wound up being a programmer and got involved in the IETF and did work in various areas of the IETF.

I knew him when both of us were volunteering to be scribes for the IESG before the Secretariat took over that function. And the minutes of the IESG meetings were just pretty -- we talked about this, and the document remains under consideration by the IESG.

And the scribes took down what the gist of the conversation was and provided a level of openness to the community of what happened in the IESG so that you could really see what conversations were going on and what was said about your documents and stuff.



And that -- John was very passionate about having that openness and making sure that the community knew what was going on. And he set up a whole bunch of templates and procedures for the scribes to use. And we had a great time scribing for this.

It was an interesting experience. And John is not with us anymore, and I'm sad about that.

>> LARS EGGERT: Thank you, Barry.

>> SARAH BANKS: So this morning in BMWG -- BMWG is the Working Group that I chaired with Al. I was there for ten years with him. He chaired it for ten years before me. As a product manager, we do SPEs and feeds and data sheets. And so I gave a bit of a data sheet on Al and started off with his firsts. His first published RFC was in 2002. That was six years before I came to the IETF. He had a 20-year career generating 42 RFCs and 56 drafts. And it's a wonderful thing to say, but I wanted to tell you a quick story about my first -- my first IETF.

My very first meeting of that Monday was in a working group that will remain nameless in a room a little smaller than this. Lots of mic lines. And it ended with two folks on either side of the room screaming at each other.

I thought, Oh, well, okay.

And my next meeting, I walked in the BMWG for the first time, and there's Al sitting at the chair desk, smiling at us. "Welcome. Welcome." And then the meeting starts, and he kicks it off, and he says, "Welcome to BMWG, the kinder, gentler side of the IETF." And I felt like he was talking to my soul. Was he in the room with me that day? I don't know.

Actually, I do know. At the time, I thought, Hmm. But since then, I've learned that every BMWG meeting we had, Al would introduce the working group with some variant of that story. And I think it's a very apropos telling of who the man was, right? He was incredibly smart.

In researching the data sheet for Al this morning, I found, oh, my goodness, he wrote the TMAN specification. I had no clue! He knew a lot of folks I worked with professionally.

If you read here, this is an obituary that was provided by his wife. He had a twin brother, and I have to say I'm really sad that given some of the ADs that we've had over the years, Joel,

Warren -- particularly Warren, you just saw his update for the NOC -- I'm really, really sad that I never got the chance to give up my chair just for a day, just for one meeting, and have all of the participants, including the ADs, walk in and see two Als. That would have been an epic troll.

But what I've learned this week is that Scott Bradner joined us this morning. Joel said some words as well. And Al was just a kind, A+ human being, super smart, very approachable, kind and gentle. I



don't think those things just apply to the BMWG, which it does, by the way. Come visit us. But it applied to Al. That's who he was. He was very intelligent and caring and giving to the folks around him.

And BMWG has a lot of newcomers and first-timers, like me as well when I was. And he made that first experience of writing my first draft and getting my first RFC in BMWG. He just made that a wonderful experience.

So it's a sad day, but I hope when you leave, if you walk into another working group at a future IETF meeting, some working group chair there will say, Hey, welcome to the kinder, gentler side of IETF, you'll think of Al.

Thank you.

(applause)

>> LARS EGGERT: Thanks. I'm going to ask for a moment of silence for the two deceased.

(Moment of Silence)

>> LARS EGGERT: Thank you.

And with that, we are starting the open mics. First up is the IESG, if you would make your way up here. And those of you who have questions for the IESG can already sort of get in the queue.

This is us. We are all here. Francesca is still on maternity leave, and she keeps us updated with cute pictures occasionally that is very nice. And Zahed was here in the beginning of the week, but he had to travel back urgently to Sweden because of a family emergency. So he's not with us.

And the queue is open.

Introductions. Yes, thank you. Let's start on the far end with Rob.

>> Rob Wilton. I'm the Ops/Management AD.

>> John Scudder, Routing Area Director.

>> Roman Danyliw, Security.

>> Jim Guichard, Routing AD.

>> Paul Wouters, Security.

>> Erik Kline, Internet.

>> Warren Kumari, Ops AD.

>> Lars Eggert, IETF Chair and gen.

>> Éric Vyncke, Internet AD.

>> Andrew Alston, Routing Area Director.



>> Mirja Kühlewind, IAB Chair.

>> Murray Kucherawy, ART.

>> LARS EGGERT: Now the queues are open.

This looks good.

(laughter)

>> Tough crowd. Tough crowd.

>> LARS EGGERT: Mr. Klensin is in the queue.

Please go ahead, John. Grant screen, maybe? No? Okay. I need to unmute him?

>> MIRJA KÜHLEWIND: No.

>> LARS EGGERT: I don't do any of this. Sorry. Completely clueless when it comes to Meetecho. John, I hear there might be something you need to do at your end.

>> JOHN KLENSIN: You mentioned the appeal that you're processing. I raised an issue on the list that there's some other issues which were not raised in the appeal but apply to the same document set.

Are you going to look at those, or do we wait until you process the current appeal and then generate a separate appeal about those issues?

>> LARS EGGERT: So the appeal was about the IESG statement on interim and in-person meetings. So they're not on a document set. So you're referring to your email on the NFSC fora, perhaps?

>> JOHN KLENSIN: No, no. I'm referring to my e-mail on the guidance on interim meetings.

>> LARS EGGERT: Okay. I was under the impression that Zahed had talked to you on the phone a few days ago, and when I talked to him --

>> JOHN KLENSIN: Sorry, we're getting confused. He did. We had a very good conversation. I think that's under control, as soon as he finishes with his family emergency.

But after you posted the note about this specific appeal on the guidance document -- guidelines document, I posted a note which indicated that there were some other issues since the original appeal did not mention and suggested that when you look at the appeal that you got in front of you, that you mentioned earlier, that you look at those additional issues also so we didn't end up having to generate a separate appeal on those issues.

And I'm wondering where that's at.

>> LARS EGGERT: Got you. So there was probably a miscommunication because I was under the impression Zahed had discussed that one with you as well. And I guess he didn't.



So I have not prepared anything yet, because that came in rather late while we were all in preparation for the meeting.

If I remember correctly -- and then maybe somebody else can correct me on this -- you were raising a question what kind of approval in a virtual interim meeting is seen by the IESG or the responsible area director. And then there was a second question on both in-person and hybrid meetings that I can't recall.

But the first one -- so as far as I know -- and again people need to correct me on this because Gen doesn't really get interim requests. So during COVID, when we were fully remote, the IESG at the time delegated the approval of fully-online interim meetings to the Secretariat because there was just a flood of them. And it was clear that they needed approval.

And that seems to have worked well because we never had any complaints about them. And that is still the process that is being used today, because the IESG, believe it or not, occasionally does try to delegate responsibilities.

On the second part, can you remind what the question in the email was? I'm sorry.

>> JOHN KLENSIN: Let's save time. If you don't remember, let me drop you and the IESG another note that we can deal with it on the list or whatever it takes. I just don't want this to get lost. And I don't want to accidentally back ourselves into a corner where another appeal is needed about the same sets of policies right after you finish the process of the appeal.

>> LARS EGGERT: Okay, thank you, John. I'm sorry there was a miscommunication. I have Robert who might have a Tools correction on this. Are you in the queue?

>> No, I'm in the queue.

>> LARS EGGERT: Okay, got it. Sorry. Thank you, John. We'll get back to you on that.

I have Alan next.

>> ALAN: Yes, just a quick comment on Warren's -- this is just a quick comment on Warren's comment earlier about WPA2 and WPA3.

Yes, the issue with 802.1x is the technologies are okay. The user interfaces are not handled by the IETF, and they're somewhat worse. So it's fine. It's a good idea. I couldn't get on earlier.

>> WARREN KUMARI: Excellent. Thank you.

>> LARS EGGERT: +1 on moving to WPA.

Tim.



>> TIM CHOWN: Hi there. Tim Chown. I notice we have now sponsors for diversity/inclusion. As a 50-something-year-old white bloke, I'm looking at a row of 50-something-year-old white blokes largely.

What are we doing about diversity/inclusion with the people --

>> LARS EGGERT: I would hope that for the LLC, which oversees this, I would point out that none of that money actually goes to leadership. This is all going to programs such as the childcare and various other mechanisms that let people attend (indiscernible) and so on.

>> TIM CHOWN: The question still stands. There are sponsors. What are we doing about it?

>> LARS EGGERT: Apparently, also a question for the NomCom. Let me -- I used to be on NomCom a while ago. And the NomCom is obviously limited by the candidates that accept nominations for certain roles. The NomCom can't pick people that didn't volunteer.

And so Martin already said earlier, right, that he hopes that lots of people get nominated. And he also hopes that lots of people accept that nomination. And if you want to see diversity, that's where it will need to come from, because the IESG, IAB, and various other leadership roles have very little ability to appoint people ourselves, right?

So it's really the community that needs to make sure that it reflects the diversity it wants to see in leadership by nominating people and convincing them and their employers that it's worthwhile.

Andrew.

>> ANDREW: Yeah. So thing is actually a really important point. A lot of it comes down to where can we get people who actually want to stand up and run? For myself, I speak as the first African resident to actually sit on the IESG. And a lot of that I found came from the fact that the NomCom was actually asking a lot of diversity questions. And we are out there -- I know for myself -- out there trying to bring people from, you know, my continent here, trying to piece the diversity because, as you say, I'm, you know, in Africa. We would refer to me as a pale male.

I would like to see more inclusion, and it is being worked on. But it's about getting candidates to actually be willing to accept the nominations, to come in and here and stand up. And that is partly about education to go out there and say, This is the IETF, come and participate. And it is something that, I think, that I know for myself and other people here, we are actively trying to encourage people to come and put their names forward and stand up and join the team.

>> LARS EGGERT: Robert.



>> ROBERT SPARKS: So I agree that actually one of the key issues here is trying to get more diversity into the organization because the people who are participating -- because that's where everyone gets pulled into.

One of the actions that the ADs can take and working group chairs can take is to try and help promote more diversity through the position. So that might be a working group secretary position or choosing like a new working group chair. You have that choice of what you're choosing between. And you may choose to put forward a candidate that you think might increase the diversity. So that's an option/choice that I've chosen to exercise on at least one occasion because I think that helps. I think that's the way it has to change. But it doesn't fundamentally change the aspect. We need to get more diversity of people coming into the organization, which really requires the outreach to companies and other organizations, to encourage them to get more diverse in terms of who they send.

>> I wanted to build on what Rob said. Certainly, there's the considerations from the NomCom. But as ADs, one of the biggest levers we have is thinking about how does one get from being a participant in the community to being an AD. And one of those key things is providing other leadership opportunities, which -- which is working group chairs. I think almost everyone here sitting at the table was prior working group chair. And I know I and my fellow IESG ADs consider that in the selection of the working group chairs, to give folks that haven't prior had those opportunities and bring them into that leadership fold because that's one of the key steppingstones to end up on this board or any of the others here in IETF leadership.

>> WARREN KUMARI: Yeah, following on from what Rob and Roman said, so, yeah, looking up here, there's a bunch of old, white guys. But from up here, looking at the audience, there's a bunch of sort of old, white guys as well.

What might be really helpful is speak to your colleagues and try to convince more people to come along and participate so that our entire community is less made up of old white guys. That would be really helpful.

>> MIRJA KÜHLEWIND: Yeah, in the same, the important part, we wish to increase diversity of this whole community, and that's something that the IAB and the IESG has discussed a lot. But I also have to say, just throwing money at the problem doesn't only help it, right?

As Warren just said, we get these diversity money from companies, but then the companies are just sending us the same people. And we depend on who is sent here. So you all can do a lot there.



And at the same time, also, if you have ideas about additional things we can do, please let us know because it's really something we've been discussing very intensively.

>> Rob and Roman have been in the queue for a while, but then some other people joined up. I want to ask if anybody else that is in the queue wants to talk about diversity? So Michael, Andrew, or Leslie?

Okay, Leslie, please go ahead so we don't have to skip around topics.

>> LESLIE DAIGLE: Sure, thanks. Leslie Daigle.

I think maybe Jim didn't ask the question quite right, because I don't think it was a question of why are you all up there at the table. I think everybody's doing a fine job.

However, comma, I think the question is: Why does that table ultimately not look like this audience does? There are more women and other underrepresented people in this audience than there are at that table. So the question about programs may be more about how do you make sure that people who are here are given the same opportunities as everybody who is up there has had?

And I'm not saying I'm looking for opportunities. I've had plenty, thanks.

So it is possible, but maybe you need to focus harder on making sure that -- that you're not just stopping at throwing money at the problem, as Mirja said, and focus on making sure everybody gets the opportunities.

>> LARS EGGERT: Fair point. One suggestion would be to see if we can have, I don't want to call it a BOF, but at least a community meeting on this, where we can discuss this a little bit longer than we have at the plenary.

Robert, do you want to go next?

Or, Andrew, were you also on the topic?

Okay. All right. I'm going to take Andrew and then we're going to go back to the queue.

>> ANDREW: Yes. So just a couple of things. There's a comment in the chat that we get a lot of people coming to a meeting once and then never seen again.

And, also, the point I was going to make anyway is Corrine Cath, her Ph.D. thesis was on the culture largely of the IETF. It makes -- some of it's uncomfortable reading, but I would urge, if you've not read it, please read it. There's a lot of good points and learnings in there.

I think there's a lot of resistance in the community to the points that are made. But if you want to change and improve the diversity, then you have to change the culture, which is always difficult, but that's fundamentally the problem.



And that is to say, the measure of why that's a problem is the sheer turnover of people that come once and then are so put off by the culture that they literally never come again.

So we have a lot of clues as to what the answers are. It's whether there's an appetite to do something about it in reality.

>> MIRJA KÜHLEWIND: Thank you for bringing this up. This is a really important point. But changing the culture is like very, very hard and definitely not something that will happen very fast, right?

Something we're trying. You all need to support that.

And I just want to say, I read these reports, and they don't offer any kind of advice. So it's like -- it's a hard problem. If you have any advice how to improve, I'm very open to that. I think we have made improvements. It's also something that's not acknowledged in this report.

And the other thing I would like to ask is to also promote the IETF and the community because what I've also seen in the report, this is kind of broader, giving advice to not contribute because the barriers are too high, and that is counterproductive.

So we're really, really trying here. And we all need to work together in order to make it work.

>> LARS EGGERT: I'm bad at running queues. It's actually Harald that is next.

>> HARALD ALVESTRAND: Thank you.

Completely different subject. I was in General Dispatch earlier this week. Listening to people explaining that they had a problem with IESG's ability to manage its document queue.

I had a real problem. I had to check that they were not reading aloud from RFC3744, published in 2004. The IESG's working methods have been constant for more than 20 years, and this wheel has been squeaking for more than 20 years.

Can we ask you, Lars, as the top-responsible person for this organization's working methods, to take a good look and see that we can do something about this so it doesn't squeak for another 20?

>> LARS EGGERT: You can ask, and I'm going to put it on my long list of things that are already on the plate for the IETF Chair. This is one of my pet peeves.

There's a ton of RFCs that basically task me, or my role, with a lot, right?

This one I would argue is the responsibility of the entire IESG. I think 2026 doesn't specifically say that the Chair needs to do it. However, I'm obviously leading the IESG.

So there were a bunch of area directors in the General Dispatch meeting, and we followed the discussion with interest. There were good points that were made. The community, I think, needs to come to some consensus on what it thinks the priorities are for the IESG because I don't think we



have clarity on that. And the IESG going ahead and trying to change things about the way we processed the documents may not actually then lead to a successful, you know, improvement. The other thing I will sort of say is that was there was a lot of focus on the document queue? Because that is what everybody understands, and it's visible in the Datatracker. For most ADs and specifically for IETF Chair, you have a document queue on one side that you need to manage, and we have a process that's old and established, and everybody understands and it.

And then we have a game of whack-a-mole on the other side, and that one is completely unpredictable and interrupts everything. And you need to keep both of those things in sync. And so it's not only the documents that's causing load for the IESG. It's random other events that somehow end up on the IESG's plate.

But I will take an action item to see if we can have a discussion probably in a room at the next IETF.

>> HARALD ALVESTRAND: Thank you. The problem statements in that RFC are also spread out over a number of IESGs. The main point is actually that we have had a lot of working group of IETF chairs who have not managed to change fundamentally how the IESG operates. And I think it may be time to abandon the status quo.

>> LARS EGGERT: Thanks for your vote of confidence here. So it is a very hard problem, right? It is -- because the IESG's clogged by the queue.

And there was a discussion whether we could run experiments, right? And I think we were actually willing to consider that, right? But they need to be well defined with metrics and data backed and so on. But, also, the community needs to understand that while we run experiments, things are going to get slower because they're not going to be faster. Do we have any other reactions to Harald from the rest of the IESG?

>> JOHN: I have a reaction, which is -- so I was at Gen Dispatch also. I agree with you, Harald, that there's a wheel, and it's been squeaking for 20 years or more.

The other thing that I heard at Gen Dispatch -- and I'll speak under correction -- was that it was a bit like the parable of the blind people and the elephant and all that, right, and where different people had their own ideas about what was causing the squeak.

So until we have some kind of clarity on it -- and I think one of the more productive suggestions was let's focus on that first. Until the community has some clarity on what exactly should be fixed, we're going to have a harder time coming up with a fix.

So that's my reaction.



>> LARS EGGERT: Robert.

>> ROBERT SPARKS: I'm going to get gently on your key management because you correctly recognized that I was adding to the conversation that John started.

You misspoke slightly but in an important way. You chose to delegate approval of interims to the chairs. You gated announcement of the interims to the Secretariat who are also tasked to make sure that the chairs were reasonably within the bounds of guidance that you gave them when they should approve these things. I think that was the right thing to do.

As you're going through the appeals resolution process and choosing to do whatever you're going to do with updating the guidance, please maintain that. This takes workload off of the IESG, puts the responsibility in the right hands. The ADs still have the responsibility to steer if the chair is not doing the right thing. It's been working. Don't change that.

>> LARS EGGERT: Thanks, Robert. And thanks for the clarification.

I think we had Leslie already. So Tara (phonetic) is next.

>> Thank you. I'm going to bring it back to the topic of diversity. For me, when someone brings up a question about funding and the answer is we should do more outreach, I don't think it's a marketing issue. The IETF's value proposition, why people should support, is clear.

On the other hand, yeah, culture issue is real. And I'm sure that an organization that has so much experience coming up with process and coming up with solutions can come up with a process that looks at culture and come up with solutions. I don't think it's an insurmountable problem for all the smart people here.

But, yeah, I want to bring it back to funding. My comment on the fact that throwing money at the problem won't solve it is don't knock it until you try it. We have not been anywhere close to throwing enough at the problem of diversity and inclusion.

So my suggestion is, like, please take the original consideration seriously. Try to invest way more resources because I think there's a structural problem where parts of the IETF is not easy, and it's not cheap. And certain people have more access to resources and certainly have more ability to participate in such a process.

And until either the process changes well enough that it provides an equal access, like, ground to everyone, there's an imbalance in resources, and imbalance in resources should be taken seriously and addressed with enough support for folks who might not have that kind of access.

And thank you.



>> LARS EGGERT: Thank you for that point. And I'm sorry if I said something that you interpreted as we shouldn't spend more money.

>> Yeah, I was just saying that in general. Like, I wasn't targeting anyone with my comment. I think it's just -- I don't think, yeah, I mean, looking at -- I'm also like, I only come to a very few IETFs every once in a while. So I might not have the full picture. So apologize if I'm missing something, but I don't think there's been enough spending on diversity and inclusion compared to other things.

>> LARS EGGERT: You're correct. It's a reasonably new category of sponsorship money we're getting in. We are actively actually looking for suggestions, what else we could do. I think the childcare -- and, remember, I think it might have come as a suggestion from the community, and we established it. We tried it out. It worked well. And we're going to fund it in perpetuity.

If there's other things that we can consider spending money on -- we actually are in a good situation where actually we have supporters that see the value in D&I. And so if we can outline the program for them, we're usually able to attract some funding to run it.

But actually happy to hear -- if you go to other events and see something that works there, let us know and make suggestions, and we can see if we can come up with something else that we can try.

>> No. It's just more funding.

And, hopefully, also take that culture issue seriously, I think. It's something that can change. Other organizations, other bodies have been able to manage culture and look at it.

But it takes one -- you need to have a process. You need to have, like, uncomfortable conversations. You need to have -- take internalized look at what happens within different working groups and different modes of operations. It's not a problem that's impossible to solve. Like, the knowledge -- the body of knowledge exists out there.

And I think it's something that, yeah, IETF can figure out. It's not -- but it should be taken seriously and put into operation.

>> LARS EGGERT: Thank you.

Eric, you had a reaction?

>> ERIC: Obviously, I agree with you on this one. Sometimes money can help. For instance, for two of the IETF meetings now, we have the closed caption. And as a non-native English speaker, sometimes when I'm hearing somebody who is also a non-native English speaker, I am looking at those. It helps. Just one minor thing, but it helps.



>> MIRJA KÜHLEWIND: So I was saying just throwing money at the problem is not enough, right? So more money can help. But at the moment, we have actually a budget, and we need more ideas what we can do.

And just a very quick comment on the culture, I think there has been a little bit of improvement. Lately, the one specific challenge we have in this organization is that we are -- we don't have membership or whatever, which makes things slightly more complicated than for other organizations. And again, this is a challenge where we need input and ideas.

>> Yeah, I also just wanted to make one other comment about the money issue. If you spend the money, for example, flying 50 people here, that could help bring people in. Then we've got to find a way to keep them coming back. And that, yes, speaks to culture. It speaks to education. It speaks to a lot of things.

And I think that more ideas about retention of new people would also be, you know, very welcome, because that is something that I've noticed that a number of people come and they show up here. They are here for a meeting or two meetings, and then they don't come back.

And ways to increase that retention of people on the newcomer side, I think, would be a really good thing. And I would love to hear ideas from the community about how we can get better at retaining the newcomers.

>> LARS EGGERT: Thank you. I'm going to close the queue because we are running quite a bit late. But, Q, please go ahead.

>> Q: (Saying name). So I have a few things to say on this.

I forgot what their name was. I am so sorry. Was just speaking a comment about spending more money.

Was it 18 fee waivers were given out? I don't think that's necessarily enough compared to how many people are present here. I'm not sure what the financial situation is, but I think more could be done to help people who don't have the money to come here. Not necessarily to every meeting, just like if we can make someone -- make it so someone can come once a year, that's still a massive improvement. Not three times a year. I know that can get expensive.

And I would also suggest more outreach with universities, because I'm looking around the room, and this is quite an old audience generally. So if we could get some more university students in, that would be great. And, you know, fresh ideas, new people, always nice.

And on the topic of retaining people, I think more could be done on -- I'm not sure what could be



done, but more could be done on the guides system, which I used in Yokohama, which was my first meeting. And I generally found it a bit inadequate.

I was just being told what was already on the IETF website, more hand-holding through the meeting because it's just such a massive organization that -- like, you can read all the RFCs about how this operates, but it still doesn't make sense. So a bit more hand-holding through a first meeting would probably help.

>> LARS EGGERT: Thank you.

And, Wes, I guess I skipped you, I'm sorry, or the queue is jumping.

>> WES HARDAKER: Don't worry about it, because I'm actually going to follow that up. I came up here to talk about two things, one of which was the guides program.

I want to thank all the guides that have participated in the past because that is how we get new people in and make them comfortable.

We have talked a lot about how do we improve it, how do we do -- one thing that we recognized the number of years ago is that we can't hand-hold people completely through the meeting because there's people that need to do their own work. So we have to find the right balance there.

But I do think that we're missing sort of the long-term how do we get from somebody coming new into the door trained up to a leadership position. And the IESG and the IAB have had conversations in the past about how do we build that pipeline, how do we get that queue. And the guides program is sort of the start of that.

To everybody else, it's, you know, be open, welcoming, approachable, and all the types of things that require people to stick around.

And then, finally, speaking of the age of a lot of people in this room, I suspect that means that many of us are managers. If you're upwards in your company, you probably have somebody working for you. I know I try to get diverse students working with me, for example.

If you're a manager, you can probably fund people to get here or talk to your organization to make it happen. And that's -- you know, you're the ones that are going to be responsible because, as Lars stated much earlier in the day, you can only accept the nominations from the people that you get. So the managers in this room are the ones that will enable people to actually be nominatable, if that makes any sense.

>> LARS EGGERT: Thanks, Wes.

Ted.



>> TED JAMES: Hi, yes. Ted James. So thank you.

I think a lot of the comments we have made here have been really good. I think there's some sort of fundamental questions that also need to be asked like: Who in the IETF is responsible in some way for diversity and inclusion? Who could people go to and have a confidential discussion about it, for example? What are we doing to measure and monitor it and report it? Those are the sort of -- if you're going to fix something, you need to be able to measure and monitor it. Those are some of the basic questions we need to make sure we got clear.

And I agree with the point that maybe we need somebody being able to discuss it more. There's a lot of ideas needed. I do agree that there are things that could be funded independent -- what's the word? People speaking independently to some of the attendees that come to find out what their views are and to be able to summary report those and find out.

Warren says he looks out into the audience and he sees a lot of white, 50-year-old people like me. But there are -- I've seen around the halls today, there is an awful lot of attendees from Asia. And I don't see many Asian people up there. Maybe they don't come to the plenary for another reason so much as we do.

So it's a really easy question to ask and it's a very complicated thing to fix. But I think there's fundamental things like taking responsibility for having a person who is -- at least one person whose responsibility it is and measuring and monitoring.

>> LARS EGGERT: I will point out that the LLC specifically -- surveys that the LLC is doing is tracking diversity and has been tracking for a number of times. And there's actually questions that are specifically about why do you or don't you participate? And what are the problems we have?

And one datapoint that I remember, because it's very sad, is that the tech industry, I think, has a 20% ratio of females, and we have under 10. So we are, like, twice as bad as the tech industry, which is already terrible, which is a depressing metric.

Tobias. We got to move on because we're running kind of late.

>> TOBIAS: I think one point about diversity is what Mirja is doing. Somebody has to wear a hat and be in charge of that.

So I do have some thoughts on people that could be approached. I don't want to publicly throw under the bus here. So if there's somebody who can -- they can push it out how we could get somebody in charge of that.

And the second thing is just starting to doing something. So first step would be birds-of-a-feather



session or after this meeting, squatting a room and talking.

>> MIRJA KÜHLEWIND: So, I mean, diversity and outreach is many, many aspects, as we discussed already, right, including chair's training, leadership training, new participants, or whatever. And we have activity for that, and that's all put together. And they have a meeting, so you can go there. That's, like, a good discussion point.

And then there's also part of the responsibilities for the IAB. We usually have a lot of outward-facing activities where we talk to other organizations and go out into other meetings. So we actually try to coordinate this a little better and create actually a position to have an outreach coordinator. So that is, hopefully, the touchpoints if you want to get engaged in the IAB.

But, generally, I also want to just encourage you to contact the leadership, the IESG, or the IAB anytime, to send us an email. We get a lot of emails, but we don't get a lot of emails from the community about these kinds of things. So we will take them seriously.

>> LARS EGGERT: Thank you. Eric, I closed the queue before you --

>> I was there way before.

>> LARS EGGERT: Okay. So I'm going to take Arnaud first, and then I want to take Eric.

>> ARNAUD: Thank you. So it's more to share, perhaps, the prospective suggestions.

So I think the problem we have here is not specific to IETF. We see that in other SDOs. And in the ITU, we have same issues, diversity. The old, white men in the room, same issue.

But I would like to rebound on this because Wes made a very good point. The issue is not only to get people here first -- and that's hard. And the issue actually is to deal with their managers and their companies, because when we studied the problem -- and it went through two resolutions that failed, through an action plan that we managed and realized the problem we have was a question that came from a former EU commissioner who said: Have we checked if education on leadership trainings, is the organization still explained?

And the answer seems to be no. So there is a large part of the world where when engineers come, it's beyond their university.

When engineers come and try to come, they have to convince their managers who have no idea what the organization means. Large areas on industry, when you ask the question, What is IETF? they are clueless. Perhaps ISO is good because ISO has its name in their letters. It's good marketing. But for what we are doing, it's strange, but that is what we observe.



So we have a bigger problem because to get them to agree for their engineers to come here and to sustain this, this is very hard today to convince them with the ROI and so on.

>> LARS EGGERT: Do you have a suggestion for us? An example of what worked for those organizations?

>> ARNAUD: So the suggestion would be, perhaps, you could compare notes because between, say, IETF and ITU and so on because we have maybe things we could bring, I'm not sure. Share through what you are trying to do and maybe join forces on some of the areas there.

>> LARS EGGERT: Thank you.

Erik. Keep speaking, I guess we need to turn it up.

>> ERIK: Is this working now?

I'm wondering if we looked at collecting metrics on why we have one-time attendees. It's something I noticed as well. And I agree with Andrew I think there's an important part of not just getting people to show up but getting people to show up and keep showing up.

And we've been actively trying to increase the diversity of the attendance, which is mostly a bunch of middle-aged white guys. And one thing that we've run into is we will have people who come once and then will not come back again.

And, like, I have anecdotal data as to why, but it's something where the anecdotes don't necessarily provide as much information. Whereas, if we started looking at collecting it every single IETF and look at who came and then didn't come again the next time, that might start giving us some concrete data to start looking at what parts of the culture we might need to fix. Or are there things around travel budgets that we need to fix? Or are there things around training or other things that we could help with people feeling more comfortable when they come here the first time to keep coming back?

>> LARS EGGERT: Thanks for that. I'm going to put a pin in this because I think this is now entering LLC territory. And Jay has been running service and might actually have data on this.

Maybe we can sort of take response to Erik from the LLC because I think this is beyond the IESG.

Thank you, all. Thank you, IESG.

Next up is the IAB, so Mirja can stay. IAB, please come up to the stage. We might run a couple minutes over depending on how busy the mic lines get. So I'm sorry.

>> MIRJA KÜHLEWIND: Hello, again.

Just start, Cullen. Introductions.

>> CULLEN JENNINGS: Cullen Jennings, board enthusiast.



>> CHRIS WOOD: Chris Wood, IAB.  
>> TOMMY PAULY: Tommy Pauly, IAB.  
>> DHRUV DHODY: Dhruv Dhody, IAB.  
>> ALVARO RETANA: Alvaro Retana, IAB.  
>> JIANKANG YAO: Jiankang, IAB.  
>> COLIN PERKINS: Colin Perkins, IRTF Chair.  
>> WES HARDAKER: Wes Hardaker, IAB.  
>> MIRJA KÜHLEWIND: Mirja Kühlewind, IAB Chair.  
>> LARS EGGERT: Lars Eggert, IAB.  
>> MIRJA KÜHLEWIND: IESG.  
(laughter)  
>> MIRJA KÜHLEWIND: Whatever.  
(laughter)  
>> MALLORY KNODEL: Mallory Knodel, IAB.  
>> QIN WU: Qin Wu, IAB.  
>> SURESH KRISHNAN: Suresh Krishnan, IAB.  
>> MIRJA KÜHLEWIND: Okay. Mic line is open.  
It's great. All the questions went to the IESG. No problem.  
(laughter)  
>> Works for us.  
>> MIRJA KÜHLEWIND: Five more seconds.  
Okay, next the LLC.  
(applause)  
>> LARS EGGERT: So, Amy and Cindy, I want the middle slot next time for IESG again. It worked way better for us than the first one.  
Mirjam, I thought for a second we were going from maximum spread here.  
>> SEAN TURNER: Sean Turner.  
>> LARS EGGERT: Lars Eggert.  
>> MIRJAM KÜEHNE: Mirjam Kühne.  
>> JOHN DALEY: John Daley.  
>> JASON LIVINGOOD: Jason Livingood, remote.



There's not a video showing of who is on the stage, by the way.

>> JAY DALEY: Jason, I'm just going to kick off a little bit with our brief thing about diversity and inclusion from the LLC perspective.

So, first of all, the things that we use the money on, fee waivers. So we have, what, 270 people roughly are coming off the diversity/inclusion budget this time. Support for the sisters group and childcare and some of the grants money that goes towards the ANRW and other things.

So from the LLC perspective, there are four things that we can do to support the community, support the IETF here. The first one is measure. The second is analyze. The third is create the right conditions. And the fourth is provide support. All of those things are things we're doing at the same time. They're not sequential.

So we've been doing a lot of measurement about what -- about the diversity of the community, about barriers to participation, and trying to get data about that as much as possible.

So that's All of the IETF survey that we do. We've done twice now. We sent it out to 50,000 people, had 2,000 responses each time. And we have some good data from that. And that's where we get the figures that Lars was able to quote earlier. So we're able to scope the problem. That's part of it.

The next thing is analyzing it. So this meeting we actually have somebody walking around doing a series of interviews with women about their experiences in the IETF so that we can understand more about that, understand why people come, why they don't come, what those things are.

And the next thing is about creating the conditions for people to be able to come, and that's something that's taken place across the organization. But you've all noticed that the organization is getting more welcoming, is getting better. So some of that is about just the action that the IESG and others are taking about some of the behavior and things. And some of it is about the fact many people here are recognizing they have a personal responsibility, and they are bringing that personal responsibility to the table all the time.

And then the final thing is the support. So that is support in multiple ways. We've had a major review of the newcomers program and are now doing that very differently. And that is now producing great results. People are liking it. They're coming back again. We have also put considerable work into the documentation and the other things that people are getting, which has got more to go.

And then, I mean, there are other bits, but that support is being worked on. So we still got a long way to go, but we at least have a plan for tackling this that goes across the organization. So it's an absolute high priority. We all know that. We all understand that. And it's something being worked on.



So that's quickly it from the LLC perspective. And I'll hand back.

>> All right. I'll run the queue.

>> ANTHONY SOMERSET: Anthony Somerset. I saved this for the LLC because it's LLC, and I'm hoping that I sit on the right side. I was obviously brought by not quite my manager but by a work colleague.

I will say it is quite hard to keep coming. It's a lot of effort, but you know, pushing through and enjoying it.

My question being the honorary tenure African in the room coming up from South Africa every time, this is long-haul every single IETF.

So sticking my stake in the ground, have we considered as the IETF an African meeting, even if it's not part of the main rotation?

>> JAY DALEY: So we are relatively constrained by RFC179 about that. It needs somebody from the community to recommend that to the IETF mailing list. It needs a process to be followed to see if there's community consensus about that, which Lars judges. And then we can start work on that.

So I personally would like to see that changed to a very different process. But I can talk to you certainly about initiating that process

>> ANTHONY SOMERSET: Yeah, I was going to ask.

>> I think it's gone.

>> ANTHONY SOMERSET: Batteries. Just tell me which list and I can start the process. No problem.

>> JAY DALEY: Yeah, I'll talk to you later.

>> Leslie.

>> LESLIE DAIGLE: Thank you. This is for Jay. I would like to give you an opportunity, Jay. In your slides earlier, you were talking about you had a chart of upcoming meetings with hosts listed and there are about eight blanks. You said a couple were under discussion, and there's room for improvement.

That sounds like there's a lot of room for hosting opportunities. So I'd really like you to drive the point home to say that we really need hosts to step up for our upcoming meetings and maybe give some indication as to what will happen in our budget if we don't get hosts for those meetings.

>> SEAN: I know I can start. Like, the great social everyone loved won't happen, right? Lots of other things to that effect won't happen. And it hurts where you want to go.



So at the end of the day, if somebody wants to go to Africa, right, somebody's going to have to help probably write a check for that.

>> JAY DALEY: Yes, please do step up. Please do help support us. Each of the meetings normally, the host fee is \$390,000. It's a lot of money, but it's a fraction of the cost of the meeting. And without it -- we can support a number of meetings without it, but it gets more and more difficult. And as Sean says there, are fewer things that we can do.

We understand that the industry is going through a bit of a difficult patch, but we think the IETF is still exceptionally valuable. As somebody pointed out, if the IETF goes, you can't recreate it. It simply wouldn't work again the next time around so please just do support it.

>> John Levine.

>> JOHN LEVINE: I have sort of a boring question, which is I noticed on the financial summary that the expenses are \$300,000 below estimate. I understand where why the revenue would be off, but I'm kind of wondering where the \$300,000 went.

>> It is below, yes. I'm not quite sure really --

>> Well, we'll take that back and get back to you.

>> JOHN LEVINE: Yeah, I mean, I'll help you look under the sofa if that would help.

>> Saving money. We're doing good things.

Mr. Nottingham.

>> I think the phrase you're looking for is we'll take that on notice.

>> MARK NOTTINGHAM: Mark Nottingham. When you're talking about diversity, especially in leadership, I would very much encourage you to think big and to think long term.

For example, I would love it if in five years we had a non-trivial number of people on the stage who were supported in their work to make sure that we had a diverse set of people there in many different axes. And by "supported," I don't just mean comping meeting fees and travel. I mean significant support. So please think big.

>> Jiankang Yao. Oh, sorry.

>> Hello. So when I first come IETF, the registration fee is around \$500 U.S. So now the registration fee is \$1,000 U.S. So in future, maybe \$2,000 U.S.

So I think that this model may be not sustainable. So I think IETF also maybe need another opportunity.



ICANN has the new gTLD program. So maybe has two years or one year they will open. So maybe IETF LLC can apply, for example, with the RFC about Internet, about drought. Registration fee, so we can -- so we can increase the revenue of IETF so we don't need increase registration fee every year. So maybe we should set a path for IETF registration fee, Because it was -- registration fee is already too high. So we are limited on number of attendants. Maybe only the people can send the people here. Some self-employed people or small company cannot send the people to IETF. So that's my suggestion. So apply for new TLD from ICANN.

>> Get another TLD?

>> Yeah.

>> We're definitely looking at all kinds of fundraising. We have somebody whose job is to do that, Lee Berkeley Shaw's job over there.

We are looking at large organizations that have, you know, the ability to throw off large chunks of change. And my goal is to get, like, \$100 million in the bank so a lot of stuff is free and we don't have to ask for money.

Unfortunately, the part about the registration fees going up from 500 to \$1,000 since 2005, we did a consultation just a couple meetings ago to actually address that. And unfortunately, there's this thing called inflation and it does go up.

So you're right, until we get the revenue stream somehow differently and in a different way, it's going to keep going up. That's just unfortunately how it's going to go, because money does not grow on trees.

But again, I appreciate. You're looking. We're looking. If you got ideas, talk. If somebody can write a check, talk to Lee Berkeley. She's more than willing to take your money. There are obviously strings, same for anybody.

>> One last suggestion. Here are some registration operation appearances. (indiscernible) So, ICANN more than ever. If we apply new TLD for IETF, we have opportunity. Thank you.

>> All right. Thanks.

>> I appreciate the work you're doing. As Jay said, the survey and analysis is very important. I would ask: Have you done some survey with the management? Or have some questions and answers to analyze what the management regarding that process or what are the challenges and if they got to their goals or not?



Usually, in administration or job processes, as you see it, as not the technology point of view, but as administration, is there quality in achieving the tasks of the organization? I think this is the job of LLC maybe. You should tell me if I'm wrong or not.

And also, usually engineers, they're not good -- or technical engineers are not good in management.. So it's good to have some kind of auditing. Another party, as you as LLC, you tell me if I didn't achieve what I should have done.

Usually in the working group, let's say, if there's a mistake happened that I couldn't get my voice out, and I talked while I'm in my meeting, I have to do appeal. I appeal against the chair of the working group. Maybe I'm smart enough to not even like to do an appeal. So usually smart people, they just leave. They will not do an appeal.

The system -- or the working system in IETF, you have to do an appeal. People don't like to do that. And with the higher level of administration, say, the IESG, is there some kind of other thing they are doing? Because usually they are busy now. This is a volunteering job.

So if they have a lot of work, we increase the number of ADs for areas. That's good. But is there some kind of auditing? Are you auditing as LLC? Are you auditing this kind of targeting or achieving the milestones for the ADs and the working group chair? Thank you.

>> LARS EGGERT: Thank you. I replaced Sean because this is straying a little bit into the standards process. There's a pretty hard firewall between the LLC, which administers the operations of the IETF, and the IESG who oversees the standards process.

And so no, the LLC does not -- is not involved in any appeals or any technical work.

If you did try and raise an issue with the working group chair and you were brushed off, I'm very sorry. Please raise with it with the responsible area director. And I can guarantee you when it reaches that level, it will not sort of be brushed off. It will be taken seriously, because an appeal is actually a formal action that the IESG takes very seriously and will respond to that.

>> This question is sort of general access to meetings, barriers to attending and keeping people returning as well as the specific EDI slant to that.

Can you share how going from fully virtual back to physical has affected, you know, access and inclusion? Sean.

>> SEAN: Well, I personally think it's gotten better, because there's more people that can come remote. And some of the hurdles we had initially, like, how are we going to do a hum, we have a tool now that helps us with those things. Some people love it; some people hate it. But I think it does help.



Do I personally think the meetings will go fully virtual and everybody will, you know, always be remote? I think no, because I think some of the actual value of the meeting is the actual in-hallway and personal conversations that you get to knock out, along technical topic 20 minutes that you can't really do over email. But that's my personal opinion.

>> But that does bias people who can afford both in money and in time.

>> Yes, it does.

>> And employers to be here.

>> Absolutely.

>> JAY DALEY: So we have significantly improved the process for remote participants. And part of that has meant sharing the pain so that on-site participants have had to change a number of their practices. Hums are far rarer now. The hand-raising tool is used. Participant -- local participants need to use Meetecho in order to be able to join the queue so that it's a unified queue. So that has made a substantial benefit, I think, for remote participants.

The area where we really haven't been able to provide anything like the same level of experience is the social side of things, the hallway and people getting to meet each other. That's something we would like to tackle, but it seems to be a general problem with this kind of meeting across the world. So we've tried a number of experiments. They haven't worked that well. And we will continue to experiment.

>> Tara.

>> Thank you. I would like to just -- yeah, it was great to hear about what the diversity/inclusion money is being spent on. And I do like -- hopefully, like, that would continue across the community. But to clarify my earlier comment, I think what didn't come across I'm talking that the scale of the challenge that's facing the IETF needs a magnitude of order more investment in diversity/inclusion. And yeah, harkening back to Mark's words and also the questions asked in the chat, what is significant support? Like, I think thinking about fee waivers for a meeting, it's more a fellowship for a year or more. Something like that on that order.

I'm not saying that's only way but just saying that -- like we're, talking about investments that are much more significant and support people for a longer time for them to be able to retain. Because if you pay someone to attend for one meeting and then can't come back next meet, you can't wonder why they didn't come back. The situation has not been changed by one meeting. That's just --



>> The average time to get an RFC out the door is three years. Your point is you paid me to come to one meeting and I got to go to eight more, how am I going to get here?

But, again, our aspirational goal is this big bucket of money that gets used for lots of stuff.

Unfortunately, the way it's got to happen, people got to give us the money, right?

>> One thing we didn't discuss, The Internet Society used to run a Technical Fellows Program, which is kind of what you described. They brought people in for a series of meetings. And that achieved part of that goal. They decided to stop that for various reasons that are theirs.

But we actually discussed on the LLC board, and with the IESG, whether the LLC can spin something up for that purpose. It would require, like, more money because it's a significant investment. And we would also need to come up with some community involvement process for selecting those fellows.

But it is something we have discussed. And if this is something we should flesh out a bit more, especially if there's companies that would be interested in supporting that kind of outreach or whatever you want to call it, I think that would be useful.

>> Exactly. And I think -- like, I'm not saying it's an easy problem to solve. I'm not saying, oh, we should just raise this budget by this much and move that lever. I recognize that it's a hard problem to solve.

But I think for me, just the key -- like, the key item or why I sound a bit frustrated is because when someone brings it up and the answer is, "We should do more outreach," it's like someone saying, "I'm incredibly ill, why don't you have some tea."

Like, yeah, outreach is good, but it won't solve a structural problem that is -- not enough funding is going towards diversity and inclusion. And that's the point I hope comes across. And thank you, both.

>> JAY DALEY: Thank you. I think we recognize this does take an order of magnitude greater effort and that's both in resources. That's in commitment from people. And that's in the degree of consensus across the community. It requires that transition that we achieve.

>> And there are many axes on this to me. There's diversity, right? So you can list 12 real quickly. And we're not going to be able to do them all at once. So we're going to fits and starts and try to make things better. But that's kind of our goal, trying to get more money to do things, right?

>> That drains the queue.

>> LARS EGGERT: The gentleman over there.

>> Thanks.

>> Yeah. My computer died. High-tech stuff.



To deal with some of the issues that you're talking about, I think you have to think of it differently. In the '80s and '90s, back when nobody had gray hair, everybody was funded to come to the IETF. You could go to six or seven because some government agency or somebody was giving you lots of money for it.

In the 2000s, there's all these different companies who said, Oh, my God, you have go to the IETF because we are going to talk about VCs. We have an RFC. And by God, they'll buy us for \$80 billion. And that's changed to the part where a lot of people now don't know the history or how things work or stuff like that. And when you talk to somebody -- I talked to somebody, I said, I'm going to the IETF, first time in 20 years. And everybody said, Wow, what's that? And I can't point at their computer and say, Thank God for the IETF because your computer works.

And so I would think about putting some push into publicity. Do the, "Hey, this is the IETF." This is why you want to send your people there. And some of the DEI stuff, some of the money things and stuff like that may just follow through once everybody gets back on, hey, we actually know what this is.

>> Okay. Take it under advisement.

>> PETER THOMASSEN: Peter Thomassen. Hello. I guess we're over the meeting time, which is when the on-site tooling already disappeared so I'm not on the list.

So I find that this diversity discussion is very much focused on money. And I'm a great proponent of diversity, but I think that there is many reasons why diversity could be lacking. One could be money for some people. And then other people, there might be other obstacles.

And I think it would be worthwhile to -- I don't know, perhaps this has been done, but to look into why actually people feel are underrepresented and then try to remove those barriers which might include spending money on removing those.

But it's not the same thing as giving stipends. So it's just an observation from the discussion that I wanted to make that point.

And another observation is it's been pointed out that some people come once or twice and then they don't come back. Maybe it's because not what they were looking for. I mean, that could also happen. So I think we shouldn't jump to conclusions in such matters

>> I apologize if I slant the conversation to talk about money. I'm the treasurer, so that's why it's the forefront of my mind. So I apologize if that's how it's coming off.

>> LARS EGGERT: And we're going to close the queue also after Warren.



>> WARREN KUMARI: Warren Kumari. Somewhat responding to what Tara said. Yes, I think we should try and make sure that people can come. But we also need to make really sure that when they do come, they feel welcome. so we should all make sure that when somebody arrives, that they're a newcomer or not, that we're actually being nice to them and treating them like people. That's it.

>> Okay, cool. Great. Sir.

>> Very quick response. So it's important that they feel welcome. But also, like, that's, like -- in terms of all the incredible people that could be in this room but can't be here, like, there is a significant resource problem coming here.

And, like, I can speak for myself. I can deal with, like, with a couple of mean people when I come here. It's not a big deal. I've dealt with much worse in my life. It's not a problem. It should be solved. But it's not -- it's not, for me, like -- I just feel like it's not coming across the fact that the money challenge -- or it's not normal to meet three times a year in really expensive hotels in different places. That's not accessible to everyone, and I just want to make sure that's clear. And until this is the only way this work is being done, that imbalance needs to be addressed some way.

>> All right. Thanks. We have closed the queue. And I believe we're last on the agenda for tonight.

>> LARS EGGERT: We are.

>> So have a great dinner.

