

The
Economic
Club of
New York

ESTABLISHED 1907

The Economic Club of New York

115th Year
664th Meeting

Paul Cormier
President and Chief Executive Officer
Red Hat

June 7, 2022

In-Person/Hybrid Event

Moderator: Barbara Van Allen
President and Chief Executive Officer
The Economic Club of New York

Introduction

President Barbara Van Allen

Good afternoon and welcome. We're going to go ahead and get started. We have a lot of guests that are participating digitally as well so we want to kind of keep the show on the road. So good afternoon and welcome. This is actually our 664th meeting of The Economic Club of New York. I'm Barbara Van Allen, President and CEO of the Club. And it's an honor to be here, which of course, this is a special year, our 115th anniversary. I'm pleased to say that The Economic Club is today, remains the nation's leading nonpartisan forum for discussions on economic, social and political issues. And as many of you know, we've had more than 1,000 prominent guest speakers appear before the Club over the last century, and we are known for a strong tradition of excellence.

A special welcome to members of the ECNY Fellows Class of 2022. We actually have 55 fellows this year – a select group of diverse, rising, next-gen business thought leaders. So welcome to you. We also have students joining us virtually from Rutgers University and the CUNY Graduate Center.

I'm really honored to welcome our special guest, Paul Cormier, today. He was very kind to come at the behest of Arvind Krishna, the CEO of IBM, who unfortunately had

laryngitis. But I think we're very lucky to have Paul with us. He was named President and CEO of Red Hat in April of 2020. Prior to that, he was the President of Products and Technology, driving major strategy shifts and expansion of its portfolio of products and services.

Paul joined Red Hat in May of 2001 as EVP of Engineering. Since that time, his leadership and experience in enterprise technology helped to pioneer a commercial business model for open-source software, moving open-source innovation from passionate communities to broad adoption from the data center to the Cloud. He's credited with leading efforts to replace Red Hat's freely downloadable and boxed business model for Red Hat Linux in 2002 with an Enterprise subscription model that satisfied open-source licensing requirements to retain the open-source principles of freedom while creating a long-term sustainable business model.

Doing so via the introduction of Red Hat Enterprise Linux helped to change the trajectory for open-source software in the enterprise and repositioned Red Hat from a consumer-based company with \$50 million in annual revenues to the world's largest open source-based software company and an enterprise tech mainstay with more than \$3 billion in annual revenue.

Under his leadership, Red Hat's product portfolio expanded well beyond its Linux roots

to a full, modern enterprise IT stack-based on open-source innovation that really has disrupted the IT industry. In 2012, Red Hat became the industry's first open-source software company to achieve more than \$1 billion in revenue. In 2019, as many of you probably know, IBM acquired Red Hat for \$34 billion – the industry's largest software acquisition to date.

He's credited with pioneering the vision for one open hybrid Cloud platform that could span traditional, on-premises hardware to multiple Clouds, helping to deliver the choice, flexibility, agility, and consistency that's required of modern enterprise IT. As part of this vision, he's also been instrumental in forging strategic partnerships with many leading technology companies, enabling technologies to work across hybrid enterprise IT environments and multiple Clouds.

The format for today will be a conversation which I'm fortunate to be moderating. But I want to say very quickly that we will reserve some time for questions today as well so please have your questions ready. As a reminder, this conversation is on the record and we do have media in the room and online. So without further ado, Paul, let's begin. And I'm going to ask one of my team to give me the "go" sign when we save ten minutes, say, for questions from the audience.

Conversation with Paul Cormier

PRESIDENT BARBARA VAN ALLEN: Paul, again, thank you for being here. And I'm going to start with a question around the strategic role of technology. So we all know during the pandemic, there's been an acceleration in digital technology across all industries, and I think it's fair to say technology has been central to that. What do you think, how has that strategic role changed as a result of the pandemic and why? What were the drivers?

PAUL CORMIER: I mean I think with the pandemic it was accelerated. I mean we were on our way here. I mean technology runs, the technology today in many, many businesses that I see, you know, it really is the core to running the business, I think in a number of ways. From a communication way, just from a consumer sense, you know, we all have technology at our fingertips. And having the capability to be able to interact with your customers digitally no matter where they are, no matter where you are, no matter where they are, has been growing and growing and growing.

Also, but competition, the competition is great. And just using technology to really accelerate your business, using AI as part of that acceleration to understand more your customers' needs, that's all part of what technology plays. Technology is the window from your customer base. Whether you're an enterprise software company or a

consumer-based company, it is the window for your customers into you. And so using it from that perspective as well as using it to get more efficient, to get customers what they want, what they need more efficiently and faster, is what technology has really played a part in.

The CIO is no longer in the backroom, you know, from where I see. The CIO is front and center in the business, in understanding the business and driving the technology to satisfy those needs. I think what the pandemic did was, it just accelerated that, it accelerated that connection. Overnight we had to have the capability to communicate with each other on a regular basis from different parts.

We were very lucky. Red Hat was very lucky as a company because we grew out of the open-source model. The open-source model has been an always very diverse, dispersed group of people. There's many engineers in my company, even when we were a small company, that were huge contributors that I've never met. A lot of engineers in Europe, sometimes we'd be confused. We thought, instead of an individual, maybe it was an entire computer science department in a university in Eastern Europe or something because we've always communicated that way. So all businesses had to do that and that was all driven by technology.

PRESIDENT BARBARA VAN ALLEN: So what are the ways, I know open source, the

whole concept of source code being widely available has been kind of underneath of all this. Why is that? Who started with the whole concept of open source? You go way back.

PAUL CORMIER: Unfortunately, I do go way back. Thank you for reminding me of that. But open source has been around for a long time. I mean I worked at a project in the 80s at MIT called Project Athena that the university was running a big part of their student body on where a lot of concepts came out of their open-source concepts. But open source went way back.

Linux was started by Linus Torvalds who was a researcher, an individual, that concept is really what started to get a lot more hobbyists involved with it. But at the university level, I mean TCP/IP, which is the protocol that's used for all network traffic today was developed in an open way. And so it's been around since the 60s or 70s, believe it or not, but it extended through the 80s with universities and then through the 90s and 2000s with hobbyists, with Linux. And that's really been really the roots of open source.

What open source has done, I think, without sounding arrogant, I think Red Hat had a lot to do with this, bringing open source to the commercial world is what really drove the innovation. Open source is what drove the innovation to get there. And the innovation today in the enterprise software world especially at the infrastructure, I would say 90 to

100% of the innovation there is via open-source software. Because the problems that we're solving today are just too big for any one company to solve and so contributions come from everywhere and the best ideas win.

And as a technologist, you have to be able to defend your ideas in order to get them adopted. And so that push has, I think, driven innovation because we're not held back by one company or a handful of companies even. A company can't hide behind their technology anymore. And so that's what's really driven the innovation. Cloud would not be here without Linux and open source. It just wouldn't have happened. And I think that's a testament to the innovation engine that open source really is.

PRESIDENT BARBARA VAN ALLEN: You mentioned the Cloud and it's interesting. I wonder, how many companies have a strategy around the Cloud? And is that something that, you know, where are you all on that? And what do you see across sectors on Cloud strategy?

PAUL CORMIER: So every company has Cloud. Companies are just starting to have a strategy. So Cloud just happened. You know, we had our Red Hat Summit three weeks ago and one of the things I said is you don't choose hybrid Cloud, it chooses you. Linux started the same way. I remember in the early days of Linux right here in New York, Red Hat sort of cut our teeth on the banks here in New York because they always are

striving for innovation.

So we started there. I remember coming into many CIOs here on Wall Street and they'd say, we don't have Linux. And I'd say, you have Linux. It was coming in through the developers just bringing it in. Cloud is the same phenomenon. In most any company, every company I talk to, Cloud has come in the back door initially through the developers. And it's because that's how they want to develop. And as it starts to get bigger and bigger and costlier and costlier, now it gets the CIO's attention.

And one of the things that's even happened, now they have multiple Clouds because some Clouds are better at some things than other Clouds. And some developers have affinity to one Cloud versus another Cloud. And so that's where hybrid came from. I mean all of this took years to really start to gel, but that's what gelling right now because CIOs are finding, you know, I talk to customers every day that have 7,000, 8,000, 9,000, 10,000 applications that they're responsible for, and more.

And so now they're at a point, they have some running on premise. They have some running in one Cloud. They have others running on other Clouds. They have some out in the edge. That's now the new data center. And so on premise, multiple Clouds, all the way out to the edge and by edge. And in telecommunications, I mean cell towers and retail, I mean stores. All of that is now, that is the walls of the data center right now. The CIO is responsible for that right now. If there's a security break-in in one of the retail,

1,000 retail stores, the CIO is responsible for that. And so that's really how it's now coming together.

Cloud has sort of happened. And now CIOs, I think more than ever, are saying now I have to have a strategy. That's why you're hearing so much about hybrid right now. We've been on the hybrid path for eight or nine years because we've been deep in Linux. We knew, we saw it happening. But now CIOs are stepping back and saying, well, I have all this out here, it really is a hybrid world. And so even though we've all been talking about hybrid for a while, I think now is really the third inning or so of hybrid. That is really the future and I don't think, I don't think anyone would argue with that.

PRESIDENT BARBARA VAN ALLEN: So it sounds like you almost need a holistic computing strategy, you know, a level up from Cloud?

PAUL CORMIER: Absolutely. The first part of it is an architecture and it's a strategy. Some applications need to run on premise for whatever reason, security reasons, data reasons, whatever. Other applications might want, might need to run better in one Cloud or another because maybe that Cloud provider has a better service that they need. Maybe one Cloud provider might be better in AI than others. And then we're now moving it out to the edge even more.

So you really have to have an architecture and a strategy from the CIO in the application level before you start or you're going to end up backing up. We're seeing a lot of CIOs that went all in. You know, six or seven years ago I talked to CIOs. They said I'm moving every application to one Cloud in five years. Well, it's six or seven years later now, almost ten years later, and overall the industry is about 25% of the applications are in the Cloud. So some have had to back up. Now it's really, you have to really look at it, it's a big engineering problem.

PRESIDENT BARBARA VAN ALLEN: So thinking about it as a business leader, what kind of challenges and, I guess, opportunities does technology, in this environment, it's a very complex business environment right now – I think we'd all agree – are there for business leaders to think through vis-a-vis technology?

PAUL CORMIER: I mean, as I said, technology can really transform your business. The Cloud is a phenomenal platform. It can transform your business as well. So I think without going down this path, businesses will be left behind. I just look at some of the, I mean one of our big customers is Delta Airlines, right? Everything that they do, all the way out to ticketing, think about it, when you go to a kiosk at an airport or when you get your boarding pass on your phone, you're at the edge of their Cloud right now. I mean those are the types of things that have made businesses able to transform themselves.

Swiss Railway, Swiss Railway in Switzerland, you know, they've got part of their system that's running out in the Cloud that interacts with customers for ticketing and the other part where all the credit card numbers are stored because it's sensitive data, it's on premise, more tightly controlled behind a firewall. That all has to interact with each other. But look at the value they bring to their customer base, whether it's Delta or Swiss Railway or others, look at the value that they bring to their customers. So it's value, it's efficiency, and it's just, that's what's growing the businesses out there.

PRESIDENT BARBARA VAN ALLEN: Are there some common mistakes that you can make as you, as a business leader, say I'm going to really go hard on technology, and that you see little patterns that you could share?

PAUL CORMIER: Yes, I think the common mistakes, as we were alluding to, I think is marching down the path without a solid plan, because Cloud is very powerful but it's also very complex. And so like any engineering problem, you have to look at it with a plan and you have to come at it with an architecture and from an engineering approach. So I think the common mistakes are not planning properly, and I'm not saying planning in a bureaucratic way. I'm saying planning in a sane, technical engineering way. What applications do I have?

Many CIOs don't even understand what applications they currently have, let alone

where is the best place to run it. And so that's what we're seeing now. And I think, that's what I was saying, we've been talking about hybrid for a while but I think I've almost seen hybrid get a reboot over the last couple of years because I think some of the tech people that worked in this space every day saw hybrid but it was sort of buried for a while.

And I think over the last couple of years, as business people and customers started to actually implement, they've realized that they're going to do hybrid no matter what because it's coming to them. And so now you're really seeing that. You're seeing consulting firms spin up from that. Any software company that starts up today, any software company without a Cloud strategy is doomed. It's just the way it is today.

PRESIDENT BARBARA VAN ALLEN: Well, switching to remote work and talent, you know, there's a lot of competition for talent, I'm wondering for businesses that now have to think about these things, is there interacting with their clients or their employees? What's changed in terms of technology? And how has technology played a role? Advantages? Disadvantages?

PAUL CORMIER: Well, I think the technology for remote work had been there. I mean, you know, Zoom and Webex and BlueJeans, it had been there. As I said, as a company, we were very much into those because as a company we had a very

dispersed workforce. But having said that, I think, just let me divert a little bit from technology, even on the human side, pre-pandemic, there was always people in our meetings, there was always people in our meetings, most were maybe in the room and some were remote, but it was a different dynamic. The in-the-room people worked differently together. The remote people, it was tough to get a voice sometimes. I think as we all went home, the dynamic of that changed.

And, you know, as we all went home, I actually think how we interact using those technologies now actually sharpened. And I think that made us, I'm just speaking for myself, I think that made us a better company for the future because we always sort of had been on, you know, hire the best person no matter where they are, sort of. Now we really are on that. And so I think now we have the opportunity to get even more talent no matter where they are but also have even more productive interactions with each other. I mean I have managers in the company, that they manage everything from, you know, day-to-day work to salary reviews, performance and everything else, their employees that are on different continents and may never get in the same room with each other.

So I think we've all gotten better with that. We sort of had a head start, but I think even companies that had no remote possibility had to do it overnight. And I think the future is going to be, sorry for the overuse of the word, but some type of hybrid environment. And I think we've sort of set ourselves up through the pandemic to do that right. I think it's

going to be up to companies' cultures to drive how much they really want to go with that.

PRESIDENT BARBARA VAN ALLEN: So really you're kind of saying if you get all that right, you might win when you're competing for talent. You might win because you're better at decision making because all the voices are heard.

PAUL CORMIER: Because all the voices are heard. We actually noticed that through, like I said, we noticed that through the pandemic that maybe we weren't interacting very well pre-. But yes, we, especially for technical talent, there's such a gap between the need and the actuality of technical talent available. And so we have to, as a company and as an industry, take advantage of wherever they are in order to really fill that need.

PRESIDENT BARBARA VAN ALLEN: You know, just touching on the company and culture, thinking about the acquisition of Red Hat and such a different culture to IBM's, I know in the green room you mentioned they are different. Maybe share some of that. Traditionally, you often hear the thing that dooms a merger is the clashing of cultures. But it sounds like you all figured out how to navigate that.

PAUL CORMIER: Yes, I mean that was figured out even before the check was signed. I mean we are very much economists and it's for a whole bunch of reasons, right? It's good for everyone. One of the big reasons, I mean the cultures are just so different, it

would have been a clash. Red Hat is a very, we modeled it after the open-source community, after the way it works in the open-source community, sort of the best idea wins, no matter where it comes from.

We have a company-wide mailing list that anyone can criticize me, or an idea, or anything else, but you've got to have a better idea. And I have a responsibility to listen, a bigger responsibility to listen for the better ideas and let the better ideas bubble up. That's how open-source works. That's how the company works. Our people may expect to be involved in big decisions. I mean obviously some, they can't, but they expect to be involved. At least at the end of the day when we make a big decision, you know, I'm expected, we're expected, management is expected to come and, you know, be very clear on what the decision is, be very clear on why you've made the decision, and be very clear on how you've made the decision, and be very open for feedback, both good and bad. And so that's how we operate.

IBM was a more traditional company. Having said that, Arvind is really working on changing that and he's made a huge impact on changing that. He's very open. He's very smart. So with open, when you want to come and criticize, when you want to come and criticize someone who is very smart, you better have a very good answer and get your ducks in a row. So, I mean that's the responsibility on both sides. So that's really what we're all about and what open source is doing for us.

PRESIDENT BARBARA VAN ALLEN: So thinking about the future, looking over the horizon, what about the next technologies? What do we see out there?

PAUL CORMIER: Well, you know, I talked about hybrid, I talked about hybrid as sort of having been here for a while, a little while. We're just in the sweet spot right now, second or third inning. I think that what's new is that's going to be the platform. I mean as software and technology providers, we're now expected to work across that platform. Our customers are hybrid, I mean almost to the extent of, I talk to customers every day. I never talk to customers, I haven't in a year or two that aren't hybrid right now in some portion of the Cloud. And so that's just the expectation. So that's the future.

Now the future is going to be, now that I said that, I talked earlier about the data center now extending all the way out into that hybrid environment. CIOs now have to be able to manage that. So we're going to have to get better at management and security, security especially, across that hybrid environment. I mean in the old days, the CIO had to worry, security was, you know, they can put a wall around their data centers. The data center extends out to the cell tower right now. It extends out, the data center extends out to your cell phone. That's the CIO's responsibility. And so everything from management to security, automation.

Automation is huge right now because, as I said, hybrid comes with a lot of power, but it

also comes with a lot of complexity. And so having the ability to automate things like simple changes. Think about that. If you have to, you know, trying to update a million nodes over the weekend by hand, the chances for doing something, a human doing something wrong in that from one to that millionth is huge. Automation is needed to be able to really affect that. AI is going to play a huge role in the hybrid world because that comes with complexity.

So we now have to do, we're extending the walls of the data center so far out, we have to use AI from everything from being able to identify security vulnerabilities before they even hit to being able to shut them down with both identification with AI and with automation to actually, action to shut it down. So these are the things that you're going to see now built around hybrid, things in automation, security, AI, things like that. Those are really, I think the hybrid platform is here for the next 15 to 20 years to build around and perfect with technology.

PRESIDENT BARBARA VAN ALLEN: You say 15 to 20, what about after that? Are we in quantum then...

PAUL CORMIER: The tech world doesn't think...certainly quantum plays a huge role in this, right? Quantum is here now. That's not 20 years from now. That's here now. Quantum is going to play a huge role, as we get into AI, as data links get bigger and

there's more analysis to be done. That's where quantum, quantum will still sit as part of the Cloud. Being able to access that within the Cloud will be what's under that hybrid umbrella.

PRESIDENT BARBARA VAN ALLEN: Well, I'm going to open it up now. That was super. Let's take some questions. Yes...

QUESTION: Great comments, Paul. Any guidance on how tech companies should deal with the elephant in the room, China?

PAUL CORMIER: That's a great question. I've actually, well, not lately, but I've spent some time there. That's a difficult one. Unfortunately, from an open-source perspective there's not as much participation you would see from China for as many engineers that are there. So let me just, let me just say it that way. I look at it from an open-source perspective. The comments that open source is what's driving a big part of the innovation, I think it's part of the whole industry.

So I almost think you're going to have two worlds for some time. You know, it's just, the acceptance of open source, I think we were there with China a few years ago. You know, I've worked with many of the firms there. We have operations there. But I think that collaboration, just from a community perspective, has sort of contracted over the

last few years. So I think we're going to have multiple silos. Sorry, I'd love to have it a little more as it was going in the past, but that's where we are. Maybe things will change.

QUESTION: Thanks, Paul. What are some of the challenges that you face with open-source from the regulators, financial regulators?

PAUL CORMIER: What are some of the challenges from an open-source perspective?

The regulators say that _____ the Cloud.

PAUL CORMIER: Well, I mean that's up to the Cloud providers, right? That's up to the Cloud providers. I mean the Cloud providers, I mean the three or four major Cloud providers even have various government, highly secure Clouds, as well. So we, as a hybrid player, we have to integrate all those different things. So every Cloud provider is different. I mean that's one of the misunderstood things out there is that even though, you know, Linux is the basis for all Clouds. You hear things, you hear things like Kubernetes, which is an orchestrator for containers.

Open source has gotten so popular now that the industry talks about projects that happen in the open-source community like they're products. So I talk about projects and

products. So I'll use the Linux kernel as an example. The Linux kernel, we all work on the same Linux kernel upstream. That's what we develop on. But then all the Linux providers, we make different decisions. We decide what to package around that, what file systems, what installers, what packages to put around that, what life cycle to put it on, what ecosystem to put, and at that point, we make it a product. Still open, but a product. The same is true for things like Kubernetes and things like that that are projects.

So because we've now confused projects with products, people think that everything is all the same. I'm going to run my containers on any Cloud and it's all just going to work. They're very different. And so what we do – each of the Cloud providers makes their own decisions – what we do as a company is we actually level that. So wherever you run your application, and it runs all the same across any of the Cloud providers, on premise, etc., so we have to play in whatever regulations, however they're implementing the regulations. We try to mask that to make it more simple for our customers. I don't know if that answers your question.

QUESTION: I'd like to do a follow-up with respect to the China question. I think you're ___ as a customer in your own silo, China has worked with us on many backgrounds. When it comes to _____ they just have a cutting edge. How do you think they will be as competitors with respect to the cutting edge of your industry, will they ever get there? Or

is that just their cultural background?

PAUL CORMIER: Well, I was talking from a perspective of open source, right? From an open-source perspective in my world, in the software world where a lot of it is driven by open source, it's not really one pool. From other parts of technology, competitors, they're fierce competitors. They're some of the smartest people in the world. And so I think the competition is going to get even more fierce there. I mean they have all the capability. I've been to Huawei's labs a number of times. It's pretty amazing. It's pretty amazing. They have all the capability. I've sat with many executives from companies like that. Many are educated in the U.S. I sat in China with one of the large companies with the CTO and his entire staff. The CTO had taught for 14 years at an American university, all PhDs. They have the capability. It's going to be fierce competition.

PRESIDENT BARBARA VAN ALLEN: I guess related to that; do you think you're going to be able to find the talent to compete against what they've got?

PAUL CORMIER: Yes, I mean we're building talent in a very interesting way. My two biggest development sites are Boston and Brno, Czech Republic, two university towns. We have a huge university connection. I mean Brno has about five or six technical universities around it that we have, we were talking about earlier, we have a huge intern program in. Some of our engineers teach there. We have interns coming here.

We do the same thing in Boston. We're sitting in the middle of 60 colleges and universities. So we have interns in from junior year on. Some of our engineers teach at Boston University. So that's our, that's what we're doing. And the wonderful thing about open source is most of the students today, they know Red Hat before they even go to college, just because they've been out there with it, with open source. So our strategy is to start even pre-, you know, to start in the early stages of the universities and to build it that way.

You know, I said, I referenced by summit speech. One of the things I said earlier was the open-source software engineers today, many have turned a hobby into a very lucrative career and so we're trying to help students do that.

PRESIDENT BARBARA VAN ALLEN: I think I remember Ginny Rometty telling us at an event that IBM had that approach of locating right in those university towns so they could segue right into their business needs. I think somebody...yes, Ken...

QUESTION: During the pandemic (INAUDIBLE). What has IBM learned from that experience?

PAUL CORMIER: I would, if I tried to answer my way through that, I honestly, I wouldn't do it justice because I do know IBM has done a lot there, but this will be a testament, as

I said earlier, we run the businesses, we run the businesses pretty autonomously. So I'm not really, that's a question for Arvind because I just wouldn't do it justice. I don't know enough about it. Sorry.

QUESTION: Let's talk about talent internally at Red Hat. As Red Hat gets more into the commercial space and companies want to adopt, how are you helping to develop talent and to actually ease into that?

PAUL CORMIER: Well, you know, one of the things that we did pretty successfully, we're really the only open-source company to really make it. And I think we're the only open-source company that's hit a billion dollars in revenue. I'm pretty sure of that. One of the things we did early on, when we decided to go to the Enterprise, at the time, Red Hat was mostly in Raleigh, North Carolina. I was commuting from Boston every week. I decided, when we decided to go to the Enterprise, about two years in, to move all the products to Boston, and one of the things that we did is we combined the open-source engineers with commercial engineers that had come from DEK and Wang and DG and other commercial companies, and we put that all together. And I think that was one of the really big things for our success of open source in the commercial world.

We do a lot of that today. A lot of our people, first of all, in commercial software companies, they all dabble in open source today. So those are the types of people that

we pick off. Someone might be in a commercial software company working in commercial software but we know them from the community. That's another thing from us, the community is a great recruiting tool. Engineers from all different companies work together on a regular basis. So we almost know who is really sharp and maybe not so sharp and all that just from those workings. And those are the people that we bring in.

Even on the business side, you know, a lot of our business looks like a commercial software business. And so how we sell it, in many cases, some cases, how we market it, but even how we transact with it. So a lot of that, we bring in people from different commercial companies today. It's so intertwined today. You know, the hardest part is finding open-source developers. All the other pieces we can source out of any of the other software companies.

PRESIDENT BARBARA VAN ALLEN: Why are they harder, the developers?

PAUL CORMIER: Because it's hard. I mean when you're developing every day, when you're creating what you create under scrutiny of anyone, you have to be a very strong engineer to be one of the best in the open-source world. I would say that open-source engineers, for that reason, are some of the best engineers in the industry. Open-source development can be a very grueling place. Everything you do every day is under the scrutiny of a lot of people.

PRESIDENT BARBARA VAN ALLEN: Any other questions? I think we'll go ahead and wrap it up. I'm delighted that you were able to join us. And I think we all agree, we learned a lot in this conversation. (Applause)

PAUL CORMIER: Thank you, Barbara.

PRESIDENT BARBARA VAN ALLEN: Absolutely. I'm just going to do some quick closings. We do have a number of upcoming events so I want to share those real quick. The President of CrowdStrike is going to join us, Shawn Henry, on June 14th. That's going to be a digital event. Evan Greenberg, the Chair and CEO of Chubb, will be here June 16th in person. And Brian Cornell, the CEO of Target will be here June 21st, also in person. And then, of course, June 27th, we have our Peter G. Peterson Annual Award Dinner, and Roger Ferguson will be honored as well as Stanley Fischer, and Roger will be giving a major speech. We just added yesterday, actually last night, June 13th, a webinar once again with Glenn Hubbard and Larry Summers, out of Harvard. And then, of course, by the way, June 13th, excuse me, July 13th. Also in July, we have Sarah Armbruster, who is the President and CEO of Steelcase. And she will be talking about remote work and the impact of that on kind of the office of the future, whether it's at work or at home and other trends. So lots to look forward to. I do want to quickly say that Arvind is going to reschedule as soon as that laryngitis has passed, and we'll try to

get him in before July 1st. Ideally that would be an in-person event like this one.

Otherwise, we'll take it into the fall.

And we always like to thank our Centennial members – we have several here in the room – who provide the financial backbone for the Club. Thank you. And also please know, members, if you would like to fill out that survey that we send after all of our events, we'd love to hear from you as we continue to try to improve our value proposition event by event as we go forward. So again, thank you everyone. For those digital, we're going to say goodbye, and for those in the room, enjoy your hot lunch. It's about to be served. So thank you.