Goldman Sachs Technology & Internet Conference

Company Participants

- Diane B. Greene, Director

Other Participants

- Heather Anne Bellini, MD & Analyst, Goldman Sachs Group Inc., Research Division
- Unidentified Participant, Analyst, Unknown

Presentation

Heather Anne Bellini {BIO 2268229 <GO>}

All right. Good afternoon, everybody. Before we get started, I am going to read a safe harbor statement. So for those of you who've been at Goldman Sachs events before, you know what I'm doing. But good afternoon, everyone. Welcome to a conversation with Diane Greene, CEO of Google Cloud and Alphabet board member.

Some of the statements that Diane may make today may be considered forward-looking. These statements involve a number of risks and uncertainties that could cause actual results to differ materially. Any forward-looking statements that Diane makes are based on assumptions as of today and Alphabet undertakes no obligation to update them. Please refer to Alphabet's Form 10-K for a discussion of the risk factors that may affect its results.

Then, Diane, she needs no introduction. But I'm going to give her one anyhow. She is the CEO of Google Cloud, as I mentioned. She is also a member of Alphabet's Board of Directors. Prior to joining Google, Diane founded and successfully scaled VMware as well as 2 other software companies. She holds multiple degrees, including advanced degrees in computer science and naval architecture. She's a recipient of many professional awards that would be too long to list and also is an avid sailor, lifelong sailor. And a fun fact would be that in -- I'm not going to state the year. But she was the Women's National Dinghy Champion. So everybody, thank you. Welcome, Diane. You're going to start with a presentation.

Diane B. Greene {BIO 6104652 <GO>}

All right. Hello. Thanks so much for having me here, Heather. And I'm going to quickly go through an update on Google Cloud and then we'll get into questions. Okay.

So just to level set what Google Cloud is, when we say Google Cloud, it's our secure, open, leading technologies, Google Cloud Platform and all its services, all the way up to G Suite, our secure productivity tool suite. And Google Cloud at this point is -- the entire Google Cloud is, I think, highly differentiated as the most -- it's got security at every layer. It is -- and I think the most secure place to have information and do communications.

Google Cloud Platform is differentiated in its data analytics and its machine learning. And it's also differentiated in our open approach to a modern developer environment.

G Suite is in-the-cloud productivity suite. I believe maybe the only one that supports hardware-based two-factor authentication and it has tremendous collaborative abilities and a lot of AI getting infused into it.

So you might have noticed at the Google earnings call on February 1, we finally put out some metrics about where we are in Google Cloud. We said in 2017 we surpassed $1 billion a quarter run rate for Google Cloud Platform -- no, for the Google Cloud business. Then we said for Google Cloud Platform, we're the fastest-growing public cloud by the trailing 4 quarters that we could look at. Then we had some other metrics like G Suite now has passed 4 million paying companies.

So at this point, we are completely an organization that is laser-focused on our customers and laser-focused on our partners. And Alphabet Google is excited about this business. And in 2016 and 2017, we were the largest driver of new headcount additions in Alphabet. This is a fast-growing business. And we are fueling it with Google-quality people and also a lot of enterprise expertise. We've hired executives from all the usual suspects. And it's a very talented group of people working extraordinarily hard. And we've really built out all the functions for go-to-market, from training and professional services, to customer engineering, to high-end architects. And it's starting to really pay off.

Then we've also forged some big enterprise, very strategic partnerships, go-to-market with SAP, go-to-market with sales. We'll be running all of SAP's offerings in our cloud, some of them already; and then Salesforce around integrating with Google Analytics and the ads data in Google's BigQuery and also around G Suite; and then Cisco around an open hybrid environment; Pivotal; Dell and a number of other big enterprise partnerships to help us with go-to-market, along with our work with the channels, the (S) system integrators.

So what have we done? The first thing we had to do was really gear up engineering to take this phenomenal technology and make it enterprise-ready, remove every deal blocker that an enterprise might have. And I'm happy to say that by the end of this last year, we had really done that. We had user-managed encryption keys, peer-to-peer networking, audit logs with fine-grained access control and identity management, all the things -- the regulatory, the compliance, all the things an enterprise needs.

So I was pretty happy to see the growth as we completed all these. And I think it puts us in a great position. And I'll just share an anecdote that a friend of mine that's a tech CEO said that runs on both clouds. The friend said that looking at what happened last year product-wise, they felt that Google Cloud out-executed the other big public clouds in terms of really useful major new functionality. So that was a nice thing to see.

And the other thing we're doing is sales and engineering are really working in lockstep. We have a really clear road map. We're executing on it. And it's constantly evolving. And while doing all this, we're also innovating, which I'm pretty proud of. So we recently put out Auto ML, a way to automatically generate a machine learning model with better -- we did it in vision first. It can get better results than the ML PhDs. So you give it any set of images and it will build a model for those images. Huge reception of that, really pleased with how many companies registered for that.

We were the ones that found the Meltdown -- the Spectre and Meltdown problem. And we shared the fix for that. We put out our open source Kubernetes and now it's the leading modern way to orchestrate your workloads. We took -- put out Spanner, the world's distributed transactional database. And we announced proprietary security chips that can be used to attest to the validity every time you turn on your computer that your OS hasn't been tampered with. And we use that in everything, from Chromebooks to our servers.

We've also been busy building out data centers. We've gone from 2 to 10 international data centers in the last two years. We're rolling them out. We can roll out a full data center in about 8 weeks once we have a location. So it's basically demand-driven now. We had to move internationally once we became a really enterprise-ready public cloud because people like to have their data near to them. We also have built 4 undersea cables connecting 5 continents, doing intercontinental -- we have one of the bigger networks in the world, guarantees low latencies.

Then finally, I was here a year ago. And we had great customers. We had a lot of retail customers. We had a lot of Internet customers, gaming customers. But now as the cloud matures, it's getting -- so everybody's seeing that the value of the cloud is in having the latest technology just there for you. Then as you get into the data analytics and the machine learning, it gets pretty vertical. And so we really doubled down on the verticals over the last year. And we've got really premier customers. These are all referenceable customers. You see on this slide, financial services, HSBC, PayPal in production, Marketo, Salesforce, health care. Google's got phenomenal amount of research going on in health care. And Google Cloud is the way we can bring that to market. If you look at marketing, Google Cloud -- Google's got all the ads data. You can bring that together in Google Cloud. You can bring that to market.

Media, gaming, communications, Nintendo and PokÃ©mon Go. And there's a lot of gaming companies. Manufacturing and energy, Schlumberger uses us for HPC, for machine learning. Colgate is a big G Suite user and now GCP, partnering with us and SAP. Retail, we really had a spectacular Black Friday through Cyber Monday this year,

doing the basic commerce as well as increasingly helping these guys with machine learning to make them more profitable.

Then transportation, Lyft, Airbus, GO-JEK, the little motorcycle delivery service growing 900% over in Indonesia. So just very exciting time for us. We're really enjoying bringing the magic of Google to companies all over the world in a way that really propels them forward. And that's what we see our mission.

So with that, I'll also take questions. Thank you.

Questions And Answers

Q - Heather Anne Bellini {BIO 2268229 <GO>}

All right. So first of all, thank you for disclosing the run rate for Google Cloud. So I know that it's something that you've wanted to talk about for a while and seems like you got everyone to agree. So that's good. You've got 4 million paying customers on G Suite. You -- as you mentioned, GCP is the fastest-growing public cloud provider. How would you measure your success versus what you thought when you, I guess, it's been two years or so, when you came on two years ago?

A - Diane B. Greene {BIO 6104652 <GO>}

Well when I came on, I mean, it was really obvious to me that we had the technology and the know-how. And I kind of knew that we weren't quite enterprise-ready. And the cloud business is a phenomenally complex business. And so I wanted to see us signing these customers. I'm pretty proud of that slide I just had up because we got them all signed. And the cloud business is interesting because it builds on itself. So you get a customer and you got to get them moved over and starting to use the services and then they start growing. And so the revenue is kind of -- builds on itself in the out-years. And so I'm pretty happy with where we are.

Q - Heather Anne Bellini {BIO 2268229 <GO>}

And the deal blockers that you mentioned that were -- I think one of them used to be, you needed a Gmail account to provision a GCP account, which is hard at a place like Goldman Sachs to do that. But...

A - Diane B. Greene {BIO 6104652 <GO>}

Although it's very secure, you can't beat...

Q - Heather Anne Bellini {BIO 2268229 <GO>}

Exactly. But the point is, did the amount of time it took for you to -- because you said those deal blockers are gone now. The amount of time it took for you to kind of, I guess, remove those from the system, did it...

A - Diane B. Greene {BIO 6104652 <GO>}

Well I'm not sure I fully appreciated how -- all of the things we had to do. And had I fully appreciated it, I wouldn't have thought we could have gotten it done in two years, like these engineers have really -- they're very good and they worked -- they're very focused and I just can't thank them enough.

Q - Heather Anne Bellini {BIO 2268229 <GO>}

Okay. And can you update us, just level set people in the audience, where do you think we are in terms of cloud adoption today? What's the best way to measure it? Do you think about it in terms of the percentage of workloads that are running in public cloud? And I guess just, where do you think we are today and how much progress have we made in the last year?

A - Diane B. Greene {BIO 6104652 <GO>}

So one thing, as I said, is I think the -- I was with a big bank yesterday talking to them. And it was a completely different conversation from when I spoke with them a year ago. And I wasn't saying anything. But then the lead person brought this up. They said, "We were thinking of this as a place to save money and infrastructure costs. And we were having a hard time with it because it wasn't clear we couldn't do it more cost-effective given our size. But now we realize that in order to keep pace with technology and in order to focus on what we do, we've got to be in the cloud." Then he specifically said that there's -- well, his technology person piped up and said, "There is just no way they could keep up with something like BigQuery for Google." Like I was just looking at some of the numbers of customers in the ad business, buying or something went from 20 hours to 10 seconds on a query -- with BigQuery. That kind of technology, they're not going to be able to get on-prem. And so that's a long-winded way of saying that we are early because I think people are just starting to appreciate. Well if you look, I think Gartner says it's about $56 billion last year. And certainly, the IT industry is over $1 trillion. So it's pretty clearly early days. Now that doesn't count SaaS. And the reason you don't count SaaS is most of them are still on-prem. And they're all going to move to the public cloud.

Q - Heather Anne Bellini {BIO 2268229 <GO>}

Right. Yes. And it used to be before you got there or even 1.5 years ago, you would have CIOs say, "Well I'm not sure if GCP is enterprise-ready, right?" Google's not an enterprise company. Obviously, you have the background to help change that narrative, which you've been doing. But how do your -- I mean, aside from that conversation with the bank that you just mentioned, how are your conversations with customers? How have they changed even recently?

A - Diane B. Greene {BIO 6104652 <GO>}

Yes. I would say that people come in pretty serious about what we can do with them. They -- now we have the sophistication to bring in the domain expertise for the vertical and really get into things we can do to move their business forward. And of course, that's really fun. And so that -- in the large customers, that is going on. The other thing that's changed is our engagement with developers, our engagement with training. We have phenomenal training programs out there, everything from online to in-person, the hackathons and the whole thing. And we -- people -- we're

clearly an important player at this point and there's no more of, "Well you clearly have good technology. But can you really serve the enterprise?" We are serving the enterprise increasingly well.

Q - Heather Anne Bellini {BIO 2268229 <GO>}

So you get that question less and less?

A - Diane B. Greene {BIO 6104652 <GO>}

Yes.

Q - Heather Anne Bellini {BIO 2268229 <GO>}

Okay. And what is -- what are the key areas of focus from the customers? What are they -- what are the top couple of things that they have on your development wish list if they were creating it? What do they want next from GCP?

A - Diane B. Greene {BIO 6104652 <GO>}

I think, overall, what customers want is everything to be easier and easier to use. And they want to understand how they can move. And we actually have a phenomenal story now because what we've done is we've taken Kubernetes, (this orchestration) and its deal for the monitoring. And we've made it work both on-prem and in the cloud. And so we can go to customers and say, "Look, when you're developing now, you can develop -- Google is the place -- we do -- we push about 2,000 pushes a day. And yet for the last two years, we've been, according to CloudHarmony, which is owned by Gartner, the most highly available cloud. So it's not affecting our availability. So companies everywhere have to have this agility to keep up now. And using the container architecture and so on is what they all -- everybody realizes they have to move to these more modern agile environments. And so now we have a way they can do it both on-prem and in the cloud. Then we can -- so we do a lot of work with customers around that. Then, of course, an immense amount of work around their data, how to make it smart, how to combine it with other interesting data, their smart data, which is proprietary to them, is becoming a key part of how they do business.

Q - Heather Anne Bellini {BIO 2268229 <GO>}

So from a competitive...

A - Diane B. Greene {BIO 6104652 <GO>}

Then IoT is pretty interesting area.

Q - Heather Anne Bellini {BIO 2268229 <GO>}

Right. So if you were sitting down with a CIO and they asked you, "What are your top 3 competitive advantages versus the other cloud providers?" What would be those 3 things?

A - Diane B. Greene {BIO 6104652 <GO>}

Yes. Well I'd say it's security, first and foremost, simply because I don't think anyone can afford not to be as secure as possible. And we've -- not only do we discover these major problems, like the (Speck Hammer) or the Heartbleed and what have you. But we also -- like with 1.4 billion Gmail accounts, we see everything. We can tell you, "Hi. someone -- you just gave away your password. Are you sure you wanted to do it because we're not going to let them log in if you want to change your password?" And so we're even that sophisticated now. And so -- and then what we're doing increasingly with GCP. So I say security and just because it's just so important. Then it's data analytics and machine learning and AI and...

Q - Heather Anne Bellini {BIO 2268229 <GO>}

Okay. And Kubernetes, would that be...

A - Diane B. Greene {BIO 6104652 <GO>}

Then the third is our open approach. And one thing I'll just say about open, the reason it's so important is the pace of technology is so fast. And it used to be something that had to run everywhere that you'd have these standards bodies. And people would elect people to go to these meetings. And it would proceed at a glacial pace. And now you can just -- if you have something that really needs to run everywhere like Kubernetes, you can -- or TensorFlow, you can just open source it and that's a standard. Then you just change the code and it can move fast. And it's the modern way of letting the world have useful standards. And we have pushed that more than anybody. I'm really proud of the stance Google's taken.

Q - Heather Anne Bellini {BIO 2268229 <GO>}

You touched on this a little bit in your slides. But one area of focus for the investment community has been GCP's go-to-market. And I guess, can you go into a little bit more detail about what you've done regarding an enterprise sales footprint? And how do you think about the pace of investment that's needed there?

A - Diane B. Greene {BIO 6104652 <GO>}

Well clearly -- so when I look at our competitors, one of them -- because they've had a 7-year head start -- has more developer mindshare, although I think we're addressing that pretty rapidly. Then the other one has been in the enterprise for like 20-some years and has got a big footprint. So we are hiring incredibly aggressively and we're focused on leveraged ways because organically, we're -- person-to-person isn't going to happen overnight. And so we're hiring people to work with as many partners. We're hiring people to do training and to train the service people. Then we have named account teams, global account teams. We have the mid-market. We have the SMB. We have the ISRs. We -- the support we have in different tiers so that -- one of the more novel things we have is Google -- we have a lot of novel kind of -- I think how you go-to-market in cloud is not finalized yet because of the complexity of the business. And you're basically merging 2 engineering teams and operating it together when a company moves to the cloud. And it has to work seamlessly, which is possible because of the cloud, because of how you can share. But -- so we did this

-- Google embedded site reliability engineers for each of Google's billion-plus active user apps. There's 8 of them. Then what they do is just monitor the application and keep it running. And so now we have customer reliability engineers to do the same for our customers. And that's just one of many things that we are putting out there to make our customers successful.

Q - Heather Anne Bellini {BIO 2268229 <GO>}

And when you talk about leveraging partnerships -- and obviously, at VMware, you did an exceptional job of building that out as well. How do you kind of grade your performance here? And has it been moving as fast as you wanted? And where are we in terms of kind of starting to see that with the investments that you've made really start to pay off in terms of pipeline?

A - Diane B. Greene {BIO 6104652 <GO>}

That's a good question. I mean, it takes a lot of work to make a great partnership. And so we've been doing a lot of engineering work with our partners, with Cisco, with Salesforce, with Dell -- and Cisco, Dell, too. And I would -- we're seeing increased traction with joint customers. But I don't feel that it's fully kicked in. In fact, I was recently giving a talk and someone said to me, they go, "(Hal Reddy) announces lots of partnerships, does anything ever come of them?" And I thought it was a fair point. But I do think some really good things are going to come from our key partnerships. We're pretty focused on them.

Q - Heather Anne Bellini {BIO 2268229 <GO>}

I want to pause for a second to get the mic runners so I don't shock them when I call for them. I'm going to ask another question. But if you guys want to get around the room and then we'll go to Q&A in a second. A question we get quite often is just -- you showed the slide, I thought -- which was great, that kind of gave the mix and some marquee customers in some of the different verticals. But there are people who'd say, "Wow, GCP must be having a lot of success. But it must be in kind of the startup community or the smaller community." How do you think about customer mix and the evolution of your customer mix, whether it's by vertical or whether it's by size of the organization?

A - Diane B. Greene {BIO 6104652 <GO>}

So I thought it was really important to work with -- to have a very strong, large customer segment early on because it would drive the products really clearly and also in sort of a land grab world, it was kind of important to get it in. So take a customer like HSBC, the third-largest bank in the world, being able to do so much with them is just great. No matter how you look at it, pushes us on regulatory and compliance. It pushes us on broad functionality, a lot of machine learning. And it pushes us on servicing and making a customer like that feel extremely well taken care of. And so we have done exceptionally well, I think, on getting these large customers. And that makes it much, much easier to bring in the mid-market and so on. We get all the SMBs through our G Suite product and really nice things have been happening. We're really getting a lot -- well, I think we're growing faster than we expected to on G Suite with large customers, like we have Verizon, 150,000 seats.

We have customers with 300,000-plus seats there. So getting those large customers deploying G Suite across their entire enterprise forces us to have everything the customer needs. And know how to take care of them. But we -- it's a volume thing. You want to have a really healthy mix across every segment.

Q - Heather Anne Bellini {BIO 2268229 <GO>}

Right. Questions from the audience? Why don't we go to this one first and then we'll come over here? I think it's this.

Q - Unidentified Participant

My question, if you were to take enterprises -- are going to innovate with ABCD, which is AI, big data, cloud and data. And you have got Google TensorFlow and you've got the GCP cloud platform, how are you inspiring or working with enterprises to unleash their applications with Apigee, use the AI as well as Google Cloud Platform? I'm just -- enterprises have a lot of applications. How are you unleashing the Apigee, the Google Apigee as well as with AI -- in order to do AI, you need machine learning. And in order to do machine learning, you need apps and data. So how are you kind of really working with enterprise on that?

A - Diane B. Greene {BIO 6104652 <GO>}

Well so for everybody, Apigee was an acquisition we did a little over a year ago that does API management. And they've done -- I'm really happy to report that, that's been a successful acquisition. And we now -- they go very well with this modern development environment we're doing. Then we've developed this, it's sort of API economy almost with all our machine learning. So if you think about machine learning, you can use TensorFlow and you can build your own models from scratch. You can use auto. We have a bunch of tools to help you. You can use Auto ML for some things and automatically generate your models or you could just use some of the machine learning APIs we have. We have one for jobs that companies like FedEx use. We have vision API. We have natural language API. We have language translation API. We have video API. So broad spectrum, more coming on all the time of these sort of APIs. And so what Apigee -- Apigee's been great because it runs both on-prem and in the cloud and on any cloud. And it's a place where you can provide a level, then direction and manage all your calls and secure them. And that works -- that fits in extremely well with our sort of orchestration and monitoring environment. And also our mobile development, we have Firebase and Crashlytics for Android and iOS, making it trivial to write an application, maybe use BigQuery in the back end or any kind of permanent data store without having to even know what a permanent data store is. And I tell everybody, this thing is getting to be like LEGOs that you put together and your 6-year-old is going to be developing valuable apps in not that long. But anyhow. So Apigee is part of that story and it hooks you to the machine learning and other useful things.

Q - Heather Anne Bellini {BIO 2268229 <GO>}

There was a -- I think there was a question over here. Was there -- a phone call.

Q - Unidentified Participant

(Kevin).

Q - Heather Anne Bellini {BIO 2268229 <GO>}

Oh, sorry, (Kevin). The lights, we can't see.

Q - Unidentified Participant

Wanted to just understand the traction you are seeing with the U.S. banks because clearly, it is easy with good U.K.-based bank. But how's the traction in the home market because you have clearly larger banks here. And the second question is, when we speak about small and medium-size companies, one of your competitors, Amazon, seems to be really all over them and moving very quickly. And the sign-ups are quite frequent and fast. So what's the game plan there? Do you want to be aggressive across the spectrum or focus more on the larger companies? How aggressive does Google want to really get?

A - Diane B. Greene {BIO 6104652 <GO>}

Oh, we just want to do a few companies. So no, we're pretty aggressive. We're working really hard. The banks, we're getting a lot of traction in many areas. So as near as I can tell, we win all the high-performance computing benchmarks. We're very good there. We're very good on the machine learning. So when you go to fraud detection, risk analysis and all these things the banks do -- pretty excited about some of the things that, I think, are going to be even good for the world that we can help the banks with. And so work there. Then with -- or even just call centers and natural language processing and so on. And so -- and we've really -- the biggest hurdle for us to working with the banks was really getting our contracting process down and really understanding the regulators and working with them on that. And I had a compliment recently from someone that said, he thought we actually were now perhaps best at getting some of that stuff done. I have no idea. But at least we're respectable there and able to get contracts closed with all the banks, which is the first step to building things out. And internationally, we're working with the banks. Certainly, AWS has been around a lot longer than us so they have more people that run on them. But I -- it doesn't seem to be a world where people want to just have one provider.

Q - Heather Anne Bellini {BIO 2268229 <GO>}

It might be helpful, you and I talked a little bit about this before, just how do you -- when AWS makes overtures into new markets, how does it change the type of customer conversations you're having?

A - Diane B. Greene {BIO 6104652 <GO>}

Yes. That's a great question because I remember shortly after I started at Google, I got invited to -- I guess, I can say -- I was invited to The Research Board, which is very high-end CIOs. And they -- you know all the questions -- and it was on my birthday, I remember, it was very unpleasant -- and all the questions were, Google's going to compete with us. I mean, they thought we were going to become insurers. They thought we were going to do everything. And I was like, no, we're not going to do that. We're pretty focused. But -- and now nobody worries about that with Google

because Google's got -- we're really clear about what we're doing and not doing. And now everybody is looking at Amazon and like that's why we got so many retailers right away. But now it's kind of going through the whole industry. People seem to not be worried about it. We're their friend. And they're a little concerned. And it also tends to be a good thing for us with the SaaS vendors because we're not doing that.

Q - Heather Anne Bellini {BIO 2268229 <GO>}

Oh, sorry, here's the mic, (Richard).

Q - Unidentified Participant

So my question is a bit of an overlap on his as well. But if you're sitting three years out. And I'm sure your platform is going to evolve over the next 2, three years, is your platform -- from a -- is it from a large enterprise perspective, is it going to be a no-brainer to say, we can't fight this battle on our own? We have to migrate to GCP? Is there other things that you guys are working on to get to that place?

A - Diane B. Greene {BIO 6104652 <GO>}

Well we -- is it going to be a no-brainer? Is everybody going to need to be on GCP? That is certainly our vision. We just see so much -- there's so much that we're doing around security and modern developer environments and the machine learning. And this is where the world's going. It's moving -- for better or for worse, it's moving faster and faster so you got to get more and more agile with your development. For worse, it is getting more and more dangerous from a cyber-attack standpoint so you got to be secure. Then the advances in machine learning are just kind of revolutionary. And you want to take advantage of that. So as long as we can fulfill what we think we can build, I think we'll be in a good position.

Q - Unidentified Participant

And from a cost standpoint, do you think you'd have an advantage where captive would no longer...

A - Diane B. Greene {BIO 6104652 <GO>}

Well it's impossible to predict because I don't know what everybody is going to price things at. But I know that we're pretty good at building efficient data centers.

Q - Heather Anne Bellini {BIO 2268229 <GO>}

And yes, we're going to take our last question right here. Just give the -- you might be -- here we go.

Q - Unidentified Participant

I would love to hear how you think about -- just as you think about GCP, would love to hear how you think about the different buckets of sales and different products that you offer. Like how do you think about it in terms of basic compute versus machine

learning? Like how do you guys internally or you just think about the different buckets of GCP, which are the biggest, which do you care most about?

Q - Heather Anne Bellini {BIO 2268229 <GO>}

That's like a Sophie's choice.

A - Diane B. Greene {BIO 6104652 <GO>}

What do I care about buckets, right? Like I said, this is an extraordinarily complex business. So we do have infrastructure customers that have a lot of volume. So we take very good care of them. And we think we provide. And they do, too, excellent infrastructure. And you can't go up the stack and you can't have a shaky foundation as you go up the stack. So no matter what, we're going to keep our excellence there and continue moving that forward. And there's so much innovation possible in the hardware in that low-level infrastructure. It's pretty exciting for our systems folks. And we've really got a lot of expertise there. Then we think about the groups that are working in the data analytics, the cloud space. And then we think about the developer environment. But more and more, we're thinking about vertical solutions, not end user-facing vertical solutions. But as you take those 3 kind of things that I kind of -- and of course, everything completely secure. But if you take those things, you can kind of make them tailored in a horizontal way for the different industry verticals. And we see some great ways to do that.

Q - Heather Anne Bellini {BIO 2268229 <GO>}

All right. With that, we're going to wrap it up. Thank you, Diane. As always, we appreciate it.

A - Diane B. Greene {BIO 6104652 <GO>}

Thank you.