Sanford C Bernstein Technology Innovation Summit

Company Participants

- Takeshi Numoto, Corporate VP of Cloud & Enterprises

Other Participants

- Mark Moerdler, Analyst, Sanford C. Bernstein
- Unidentified Participant, Analyst, Unknown

Presentation

Mark Moerdler {BIO 16855032 <GO>}

Welcome, everyone. Again, for those who don't know me, my name is Mark Moerdler. And I cover global software for Bernstein. It's with my distinct pleasure to welcome Takeshi Numoto, Corporate VP of Cloud and Enterprises. Takeshi has been with Microsoft since 1997 and brings to today's discussion deep knowledge of Microsoft's commercial products and commercial cloud solutions. And since he doesn't have a jacket on, I'll take mine off and roll my sleeves up. So we can hold a -- (Inaudible)

It's okay, I want to be relaxed. And we'll lay into lots of interesting questions.

So what I'm going to start off with is some, what I would call, speed dating questions, blast questions, get some quick answers to some questions that investors have asked us at a high level, can give (inaudible).

I'd like to start at a high level with what makes up Microsoft's cloud platforms, what are the products.

Takeshi Numoto {BIO 21693553 <GO>}

When we talk externally about Microsoft Cloud and cloud run rate as a revenue metric, as an example, we're talking about the commercial cloud service offerings we have. So that includes things like Azure. And it's inclusive of all the underlying offers that it has, like EMS or Power BI, as well as Office 365 and Dynamics 365.

Mark Moerdler {BIO 16855032 <GO>}

Excellent. At a high level, why do you have so many datacenter regions worldwide?

Takeshi Numoto {BIO 21693553 <GO>}

Well it's really customer demand driven, in the sense that our customers need, in terms of their IT environment and what they look for, is very, very complex. So whether it be from regulatory requirements like data residency or the ability to really have datacenters close to wherever they want to deploy their applications and solutions, that's kind of what we look at in terms of giving our customers the option to be able to deploy their solutions and their applications closer to either their employees or their markets that they're trying to address.

Mark Moerdler {BIO 16855032 <GO>}

So how big is a datacenter region or a datacenter? And are they comparable between what a Microsoft and Amazon and Google might build?

Takeshi Numoto {BIO 21693553 <GO>}

One thing I first want to clarify is, when we talk about 38 regions for Azure, which is something you may have heard about, region is not a datacenter. Region is essentially a logical representation of one or more datacenters.

So we typically set up -- there are some regions that are represented by huge datacenters, where one large datacenter is a region. But there are other cases where, more typically, we're aggregating multiple datacenter locations. So that they're within network latency proximity, such that we can logically represent it as one logical datacenter. And we call that a region. And we have 38 of them announced in the world. And that's more than basically what all of our competition offers by a wide margin.

And again, like I said, the reason we offer this is because we are really geared towards the enterprise needs. And when you think about one of the key reasons enterprise customers look to us is the ability for them to deploy their applications and solutions closer to where they need to have their application solutions deployed.

We're also unique in the sense that we offer -- essentially, we're the only global provider that is legally licensed to operate our cloud services and offer them in China. And we offer that through a partner called 21Vianet. And we also have a unique -- essentially a data trustee model in Germany, where we have datacenter offerings in Germany, where the data controlled, in terms of the access to the data, is controlled by our partner and not by Microsoft directly. And that gives them, particularly customers in Germany and Europe, additional isolation in terms of data sovereignties.

Mark Moerdler {BIO 16855032 <GO>}

Great. Thank you. And how big is your datacenter footprint? I mean, could we say it's built to support 10% of the world's compute -- I mean, what's a fair metric of what

you've built to date?

Takeshi Numoto {BIO 21693553 <GO>}

We can share with you a bunch of the collateral we have in terms of the sheer scale of our datacenters. Because it is quite impressive. Sometimes people talk about the cloud and, a lot of people immersed in kind of things like a server room. And then think, well, we have a cloud, too. But the sheer scale of our datacenters. And let alone the sheer scale of the regions that aggregates multiple datacenters, is quite staggering. We could sort of show you sort of video reel [ph] that talks about the amount of concrete used in just one datacenter, the number of cabling that's used in one datacenter that can exceed -- essentially that can circumvent, encircle the earth multiple times and things like that. And the scale is quite impressive.

Mark Moerdler {BIO 16855032 <GO>}

Any sense in terms of -- is it built out to capture some big portion of the world capacity?

Takeshi Numoto {BIO 21693553 <GO>}

I think your question implies that the cloud is largely sort of a mere shift from a trend [ph]. So for us -- and sort of the customer adoption pattern bear this out -- cloud can, of course, be a place where you shift your workloads. But so many times, cloud is also a place where you do new things that you didn't do before. If you want to do advanced analytics, or if you want to learn a machine -- have a machine learning (inaudible) that you want to apply against your data, they may not have been activities that were done on-prem.

So we're surely not thinking about building out our datacenter capacity as a percentage of the world's computing capacity or even on-prem capacity; we're just really doing it on the basis of customer demand. And basically scaling to meet the needs of the customer demands.

And the consumption growth for Azure has been very substantial. In Q1, I think we talked about our Compute, Azure Compute growth doubling year over year again. And overall consumption growth was around over 120% year over year. So we're basically looking at -- we're seeing all this customer interest in consumption growth across the world. And how do we keep up with the capacity. And we don't think about it in the ratio that you talked about.

Mark Moerdler {BIO 16855032 <GO>}

Okay. That's fair.

Little more detail -- where are we in the Azure adoption cycle? Is this still the early adopter, the guys kicking tires? Is this enterprises running large production enterprise workloads? How should we think of it?

Takeshi Numoto {BIO 21693553 <GO>}

I would say it's not -- it's certainly not just the, quote-unquote, early adopters. I would say, what the best -- one way to think about it is almost like an early innings, if you play baseball.

Mark Moerdler {BIO 16855032 <GO>}

Okay.

Takeshi Numoto {BIO 21693553 <GO>}

So everybody's playing the game. Everybody's into the game now, with varying degrees. Some of the customers are starting with sort of the tiptoe in the water, maybe with SaaS applications like Office 365 or just, on Azure, maybe something like disaster recovery. Then, there are other customers that are far deeper into it in terms of really deploying mission-critical applications, like SAP and running that in Azure.

And so the question is essentially -- my answer to the question is the participation into the cloud is really taking off across our customer base. The degree of which. And the sophistication with which, they do it is still high variable. But the level of participation into the cloud, I think, has broadened dramatically over the last year or so.

Mark Moerdler {BIO 16855032 <GO>}

Okay. And you expect that to continue, obviously?

Takeshi Numoto {BIO 21693553 <GO>}

Yes.

Mark Moerdler {BIO 16855032 <GO>}

Good, excellent.

What is Microsoft's cloud value proposition to customers versus some sort of an enterprise software vendor, a Workday or some other vendor? And in the future, do you see customer using multiple clouds, like Azure or AWS with Compute. And Oracle Workday for apps? Or how do you think of the world moving over the next number of years?

Takeshi Numoto {BIO 21693553 <GO>}

The journey that we see customers going on -- their entry point into the journey to the cloud could be different depending on the customer. Some customers may start

by introducing SaaS applications into the environment, whether it be Office 365 or Dynamics 365. That may be one part of their journey.

Or they might start with infrastructure first. And may start with something like storage or disaster recovery. Or they might actually start using the cloud in terms of developing net new applications that the -- that's sort of hard to conceive or deploy on-prem. And particularly around things like new data and AI type applications.

So whether you start with a SaaS first or infrastructure first, or net new application into the cloud first, what we see customers evolving to is that they end up needing all three. So you might actually start with one of these three different scenarios. But over time, customers will essentially need all these, whether it's a SaaS thing or IS [ph] thing or net new application development platforms.

And we see this in the customer number. So in Q1, for example, we talked about how of the Fortune 500 companies, not only do we have 90%-plus of our Fortune 500 customers running their business on Microsoft Cloud. And over 60% of them are running three or more of the Microsoft Cloud offerings, which is basically a 20-point improvement year over year. And it kind of goes to show us, customer may start in one of the different entry points. But actually evolving to use more of it.

And so compared to other application-centric vendors, our really [ph] approach is we're far more comprehensive. And that's why we see even partners like SAP basically bring their applications to run on Azure. We've made some announcements on this a few weeks ago. And no application that you know in the enterprise stands alone. They're never in a silo, they have to be integrated with different applications. The data needs to be shared across different applications, then there's a huge role that a horizontal application platform and a cloud platform like Azure can play.

And of course, if the customers want to go essentially deploy a SaaS application purely with SAP or Workday, we will actually have connectors in other integration points, whether it be things like Active Directory, to go integrate. So we want to make sure all customers have a way to use Azure, whether it's conjunction with that existing SaaS app or using Azure as a horizontal line of business model.

Mark Moerdler {BIO 16855032 <GO>}

Okay. Brilliant one of the [ph] numbers. You said that 60% of the customers are running -- of the 90% of the Fortune 500 are running three or more solutions. But that's still, again, in early innings within their opportunity to build out and use Azure, correct?

Takeshi Numoto {BIO 21693553 <GO>}

Yes. First of all, that 60% isn't within the 90%.

Mark Moerdler {BIO 16855032 <GO>}

Okay.

Takeshi Numoto {BIO 21693553 <GO>}

So it's actually 60% of (multiple speakers) the base. And when we talk about three, it is sure that there's even within the three 60 that's already using three of our services. We have a lot of consumption growth opportunities, because they may be starting to use one of the three services. But they can use more of that volume of that same service, in addition to consuming more of our service. So there's a lot of opportunity there.

Mark Moerdler {BIO 16855032 <GO>}

Excellent.

Can you provide a sense of the opportunity for Azure from third-party SaaS and solution vendors building and running on top of Azure? If you had -- gave SAP as an example, how big of what's going to run, or you think could run on Azure, is going to the other SaaS members?

Takeshi Numoto {BIO 21693553 <GO>}

I'm not quite sure I get particularly fixated on the notion of a SaaS or not. It is interesting to really think about the opportunity we have for how essentially the enterprise ISV application can essentially move to take advantage of something like Azure. So given historical relationship we have with so many of the enterprises ISVs, we have an opportunity to work with them and talk about how their enterprise ISV solution can take advantage of cloud. And they can also move from essentially an on-prem business model to one in the cloud.

So as an example, Esri delivers their geospatial solutions on top of Azure. They're historically been an on-prem solution. But now, they bring their cloud solution to the cloud. Teninose [ph] as a core vacuum [ph] solution has historically been an on-prem solution. They're working with us (inaudible) via the cloud. And so we have an opportunity to think about whether it's delivered as a sort of a multitenant SaaS application or deliver it as essentially a cloud host as solution that isn't necessary SaaS or multitenant. There's a huge opportunity for us to work with enterprise ISVs to bring their solution to Azure and help them essentially transform their business.

At the same time, we also have an opportunity to work with net new ISVs that are net new to the world or are developing net new solutions. And we can offer them sort of a faster and hopefully a better chance of succeeding in the marketplace, because they can use Azure to ingrate with enterprise environments. Most enterprise customers, for example, don't necessarily want to set up another directory or authentication scheme with a new SaaS vendor, particularly if you are an established [ph] player. And so we can offer them help by saying -- hey, if you integrate with Azure and Azure AD [ph], as an example, you can offer sort of a unified authentication scheme to your application that enterprise CIOs and CSOs would like

to be able to be able to manage your applications. And so we have an opportunity to onboard net new enterprise ISV stacks [ph] as well.

So both whether it be helping transform existing enterprise ISVs or bring net new enterprise ISVs into Azure, I think we have a great opportunity. And those, of course, all catalyze consumption of Azure.

Mark Moerdler {BIO 16855032 <GO>}

So following on that, why Azure versus some other cloud platform or building your own datacenter?

Takeshi Numoto {BIO 21693553 <GO>}

Well I think it boils down to there are three, four things that we're focused on at the Microsoft Cloud level. It's not initially just an Azure segment. But it's sort of a Microsoft Cloud segment that we're focused on.

First, we talked about sort of our global scale and having this set level of regions so that you can actually have -- can address your data residency needs, you can essentially deploy -- have far more options than what the competition offers in terms of being able to deploy solutions and applications closer to where you need it, whether it be market or employees or partners. That's one advantage.

Then, we are very, very much focused on really making it easy for both our partners and customers to be able to trust our cloud implementation model. So trust is a huge deal and a key enterprise design point for us.

So when you think about the work we do around security or the amount of compliance work we do, we have far more -- we have more compliance certification than any other global cloud vendor, when you think about SoC [ph] or ISO or even vertical compliance standards like HIPAA or PCI, or you name it. And we have more than any of the competition. And that essentially lowers the barrier both our customers and partners to use Azure. And that's a huge differentiation point.

Then thirdly, I think, a big one is really a deep notion of hybrid. For us, hybrid isn't just a mere notion of connecting public clouds on-prem. Or it's not even about just moving virtual machines to between on-prem and public cloud. It's far more of a complete consistency in the platform. So all the way from the application layer, from things like productivity or business application, data technologies like SQL, all the way down to identity and infrastructure, we provide a really consistent platform. And that essentially enables both our partners and customers to be able to have a much more flexible deployment model, where you can focus on your app. And then deploy -- think about what the best way to deploy it. And those are three big differentiations we have versus the others.

Mark Moerdler {BIO 16855032 <GO>}

Excellent. So does that then define the approach almost as you're giving clients a ramp to the cloud versus a rip and replace [ph] to the cloud?

Takeshi Numoto {BIO 21693553 <GO>}

Certainly, that's part of it. Like I said, a lot of the cloud consumption is taking place not initially just as a lift in shift --

Mark Moerdler {BIO 16855032 <GO>}

Right.

Takeshi Numoto {BIO 21693553 <GO>}

-- but also using net new. And also like new scenario that combines what you already have on-prem. So net new doesn't mean it's in the isolation of on-prem; oftentimes it shares data, or it shares the technology that you already have on-prem. And then using the cloud to extend it further.

Mark Moerdler {BIO 16855032 <GO>}

So is that why you've been focusing so much energy on AI is because of machine learning, because it creates new use cases?

Takeshi Numoto {BIO 21693553 <GO>}

Well for us, from a cloud perspective, consumption is almost our prime directive.

Mark Moerdler {BIO 16855032 <GO>}

Right.

Takeshi Numoto {BIO 21693553 <GO>}

And so we want to do everything we can to drive the cloud adoption and consumption. And that could be by enriching new offerings, like delivering new offerings and use cases like AI. Wouldn't you like to be able to add speech recognition to your application, would you like -- what other scenarios where face detection can be useful, or emotion detection can be useful in your own applications? And we offer those as APIs that you can use to build apps as Azure. That certainly adds to the new scenario where the business opportunity isn't just the monetization opportunity we have for the APIs for offer for that. But also the broader application consumption that it brings for sure.

And similarly, that's why we're so focused on essentially expanding our TAM. So to speak, of our cloud offering by embracing OSS solutions. Because when you think about supporting all variants of Linux, including Red Hat, having not just the operating system support but broad set of OSS technologies, whether it's on the

data side, like MySQL or Mungo [ph], or if it's the language and frameworks that a lot of the OSS developers are familiar with. We're spending a lot of time making sure that our SDKs for PHP or no Goldman Sachs [ph] and whatnot are all first-class. So that we can bring in more OSS developers into Azure. And that's certainly showing in customer adoption. Because when you think about Azure VMs, over a quarter of the VMs running in Azure is Linux right now.

Mark Moerdler {BIO 16855032 <GO>}

Right. Okay. So if you're opening up the opportunity for open-source, you're opening it up for Linux, the SaaS guys are -- many of them are running on Linux or other open-source capabilities. Does that shrink the opportunity for Windows Server?

Takeshi Numoto {BIO 21693553 <GO>}

Not necessarily. When you think about -- as you might expect, we're fairly rigorous in tracking our installed base and sort of share in the enterprise in terms of what percentage of the servers stops running the [ph] enterprises, Windows versus Linux. And we're not initially seeing a dramatic shift at all in terms of Windows business in that regard. Continues to be pretty healthy. Even if you think about our on-prem business results in Q1, we reported a double-digit growth in premium versions of our server products. Part of this is, as customers become increasingly more sophisticated as the use the cloud [ph], they want on-prem technologies that are sort of more compatible and copasetic with the models themselves. And so that's driving sort of more of a higher addition adoption on our on-prem servers, too.

And so I don't initially think of cloud transition as essentially a shrinkage of the Windows Server opportunity. But it's really certainly more of the cloud giving us an opportunity to participate in markets we haven't participated in before in the Linux market. And that's why we're embracing.

Mark Moerdler {BIO 16855032 <GO>}

So following on on that -- should we feel as investors comfortable that Windows business is a continuing, growing business, given all the puts and takes of everything else?

Takeshi Numoto {BIO 21693553 <GO>}

We certainly think about the lifetime value of the Windows Server. And whether it be on-prem and we have a very healthy and growing mix of annuity. And we are actually doing things like Azure hybrid use rights, which we're baking into the annuity business model, where if you essentially buy Windows Server, then you actually can take that license and deploy it to essentially run Windows Server more cheaply in Azure. And so we're basically, again -- that's almost -- you can think of it as a hybrid business model. And that's one way to make sure that our -- the customer's journey into cloud is accretive to our business overall.

Mark Moerdler {BIO 16855032 <GO>}

Excellent.

So one more on Windows -- how should we think about how much of the Windows Server use case is tied to hosting traditional Microsoft Windows workloads like Exchange and SharePoint, et cetera?

Takeshi Numoto {BIO 21693553 <GO>}

When we look at the use cases, there's just a vast amount of long-tail applications that are deployed on Windows Server. The first-party applications, like SharePoint and Exchange, are certainly important applications for us. But in terms of the overall impact to the installed base of all the Windows Server out there, I mean, I wouldn't say it's that dominant.

Mark Moerdler {BIO 16855032 <GO>}

Okay.

Changing gears -- Dynamics -- we haven't really -- investors haven't really focused yet on Dynamics. But yet, this quarter, we had a really good result on Dynamics CRM online. The cloud version seemed to be growing very fast. Where is the focus for the Dynamics product? Is it midmarket, is it enterprise? How should we think about it?

Takeshi Numoto {BIO 21693553 <GO>}

Well I do think it's both. Historically, you might be recalling that some of the assets originally that we started Dynamics business with were based on acquisitions that were more centered around midmarket.

Mark Moerdler {BIO 16855032 <GO>}

Right.

Takeshi Numoto {BIO 21693553 <GO>}

And so that might cause you have to -- hey, that's kind of a midmarket-based asset. But when we think about our business growth, we're seeing really, really strong business growth in our what we would call VPE space as well. And so increasingly, the Dynamics business is not just a midmarket business; it's certainly growing rapidly in the enterprise as well. And we've had some market wins, whether it's VHV that's a switcher from Salesforce, or -- they get a customer like American Online's [ph] adopting CRM. So we are seeing adoption in the enterprise for sure.

Mark Moerdler {BIO 16855032 <GO>}

And is that today's predominantly Dynamics CRM? How do we think about it long term? Is it more of a mixed VRP, is it new products within the Dynamics family?

Takeshi Numoto {BIO 21693553 <GO>}

Well actually, one of the things we've most recently done -- and we should spend [ph] more time increasingly on it -- is we've announced a new approach to our biz apps where we are now going out to market under the unified branding around Dynamics 365.

And what we're doing there is to really break down sort of the vendor-imposed silos that exist in the market today, where there was a CRM. And there's ERP. And that was treated completely differently. But that kind of a segregation of duties and separation and segmentation was largely vendor based, where what the customer really wants is the ability to think really about -- hey, how do I actually run the business in the best way possible from essentially a lead all the way to cash?

And so, we've now gone onto market. And it's available today in the market called Dynamics 365, that essentially unifies the assets we've had traditionally in what we used to call Dynamics CRM, as well as our ERP assets. And basically having one unified cloud offering that can essentially handle that process end-to-end.

And in addition to doing that, in addition to unifying sort of our [ph] CRM product and an ERP product, we've also done it in such a way so that it's not just this one large monolithic thing you have to buy. If you just want to start with customer service, if you just want to start with sales automation, if you just want to start with field service or project service automation, you can just get going with just essentially the scenario you like, knowing fully well that the platform is fully integrated. So that you can add additional applications, business applications. And then actually consume all of our capabilities. But we're done it in a way where you can actually start in a bite-sized way.

And we think that the way we both approach the products. And even the pricing model and the licensing modeling, is quite disruptive to the marketplace. And we'll quite bullish.

Mark Moerdler {BIO 16855032 <GO>}

Excellent.

So is that fully integrated just Dynamics 365? Or does that span into the Office 365 with a similar name. And Azure. And other products?

Takeshi Numoto {BIO 21693553 <GO>}

Dynamics 365 is our unified biz app offering from across sort of the CRM business processes all the way to operations and finances. And that product, as a biz app

suite, does integrate with Office 365. So there's a lot of capabilities that it offers where if you get an email in Office 365 within Outlook, if there's -- let's say, if the customer emailing includes like a quote number of whatever --

Mark Moerdler {BIO 16855032 <GO>}

Right.

Takeshi Numoto {BIO 21693553 <GO>}

-- it would recognize that and essentially prompt that same quote from the backend system in Dynamics 365. So there's a lot of integration across the products. But Dynamics 365 does not encompass Office 365. Those are basically peer products that integrate across each other.

Mark Moerdler {BIO 16855032 <GO>}

So future upsell opportunities?

Takeshi Numoto {BIO 21693553 <GO>}

Absolutely.

Mark Moerdler {BIO 16855032 <GO>}

Okay.

Can you give us a sense of the cross-sell advantages of having Office 365, Dynamics 365, Azure -- how much -- how big you think of it as being a sell a module and upsell to the other, or sell a suite? How big is that. And how sticky is that opportunity?

Takeshi Numoto {BIO 21693553 <GO>}

Well I mean, again, some of the numbers I quoted, I think, sort of speak to this point, where we are seeing more and more of our customers use multiple of cloud offerings.

Mark Moerdler {BIO 16855032 <GO>}

Right.

Takeshi Numoto {BIO 21693553 <GO>}

So going to 60% of Fortune 500, 20 points increase over year over year is a substantial movement.

Mark Moerdler {BIO 16855032 <GO>}

Right.

Takeshi Numoto {BIO 21693553 <GO>}

And I think it does speak to the power of really thinking about Microsoft Cloud holistically.

I think I get a lot of questions from this community that essentially attempts to take kind of what I think of as a very narrow comparative view on Azure versus AWS, or Google versus Office 365, in a pretty category-by-category narrow way. But the real power that we are seeing in our customer adoption of cloud is that they end up needing all of the elements of the cloud. And we're uniquely positioned to be able to address their need holistically and the opportunity to be able to essentially address their needs across these different cloud needs that they have. Then, we're seeing that in the numbers, I think.

Mark Moerdler {BIO 16855032 <GO>}

Excellent.

So let me open it up for a couple questions from the audience. Keep the questions short. So that I can -- I'll be able to make sure that I repeat it. So it's on the mic. Thank you.

Questions And Answers

Q - Unidentified Participant

(technical difficulty).

Q - Mark Moerdler {BIO 16855032 <GO>}

So the question is, can you go through the methodology, internal thinking in terms of insourcing your datacenters versus outsourcing it?

A - Takeshi Numoto {BIO 21693553 <GO>}

Well when you say insource and outsource, I use -- it sounds like you're asking kind of a lease-or-build kind of a question. Because whether the facilities are leased or not, I want to make sure like we actually do run the datacenter operations ourselves. So it's not like Azure datacenters is somehow outsourced in terms of its operation, whether the underlying assets are leased or built ourselves. So that's one clarification I wanted to.

Then, it's really -- I hate that you might not like this answer. But it's really on a case-by-case basis. Sometimes we know we have to think about our ability to get to market quickly. And sometimes a lease might be a faster option. Build might take slightly longer, as you might imagine. If you think about the long term, cost of build

might be slightly cheaper. Like we have to think about all these elements. Then, on a per-country and per-region basis, we think about what the best way are to do it.

And none of the businesses are fixed in stone, in the sense that -- again, a region encompasses multiple datacenters. So a given region might encompass datacenters that have two different implementation models, one that's leased and one's built. But it's one region that we represent to the customers. So really, it's an implementation detail that we think about in a very case-by-case way.

Q - Mark Moerdler {BIO 16855032 <GO>}

Excellent. Next question? Good. That's easy.

So if we then look at the Microsoft Cloud vision, when you look at the commercial side of the business, what is your expectation of how much, how fast that transformation on [ph] the cloud is? And is it going as fast as you'd like it to go?

A - Takeshi Numoto {BIO 21693553 <GO>}

Well I guess we would always like it to go faster.

Q - Mark Moerdler {BIO 16855032 <GO>}

Right.

A - Takeshi Numoto {BIO 21693553 <GO>}

Right? If you just ask (inaudible) hey, your Azure growth is pretty substantial, are you satisfied, he would say -- hey, I want more. Of course, he will say, I want more. He tells me I want more all the time. (Inaudible)

But overall, I think we are quite encouraged by the growth we're seeing. We are continuing to see triple-digit growth in consumption. Compute consumption, like I said, doubled year over year. And this is not the first time it's been ongoing for quite a while. And we have a lot of work to do.

But the notion of essentially having a real technology stack that we can bring to bear, both in our public cloud that also has a consistent platform that customers use on-prem seem to be resonating. And that's really also helping -- the cloud approach is also helping us address new TAM that we didn't participate in before. So overall, I think we're quite bullish.

Q - Mark Moerdler {BIO 16855032 <GO>}

Excellent. So what would be the limiting factors, or are there any, in continuing to grow at the rates you're growing. And within both the Azure business and the Office 365 business?

A - Takeshi Numoto {BIO 21693553 <GO>}

Hmm.

Q - Mark Moerdler {BIO 16855032 <GO>}

Or maybe there aren't any.

A - Takeshi Numoto {BIO 21693553 <GO>}

Well of course, we can always execute better and go faster. And that's across both. On the Azure side, we need to do a great job of consistently balancing two key growth levers. One is to acquire new customers. And we're basically adding about 200 subscriptions a week now. So that's a high run rate of either customer acquisitions.

But at the same time, we have to do a great job of the customers we acquired in growing their consumption.

Q - Mark Moerdler {BIO 16855032 <GO>}

Right.

A - Takeshi Numoto {BIO 21693553 <GO>}

And that's all about how do we make their product easier to use, how do we engage with the customer with some of the sales resource investments we made. So that we can actually help them accelerate their consumption to the cloud? And so those are things we just have to go continue to fully execute on.

But it is really upon -- the market momentum is clearly [ph] behind us. And so it's really upon us to seize the opportunity.

Q - Mark Moerdler {BIO 16855032 <GO>}

Excellent.

Changing gears over to SQL Server -- who do you see as the biggest direct competitors to SQL Server? How would you compare yourself against what Oracle delivers today versus Aurora [ph] delivers today?

A - Takeshi Numoto {BIO 21693553 <GO>}

So we think we have a really disruptive value proposition with particularly SQL Server 2016. If you think about all the value and capability we've added to the product. And whether it be our in-memory capability. So you can do advanced analytics right on top with the database, all the in-memory OLTP [ph] performance implements we made, or in-memory of BI [ph], all these capabilities we added would be essentially an add-on product in the Oracle product realm.

Q - Mark Moerdler {BIO 16855032 <GO>}

Right.

A - Takeshi Numoto {BIO 21693553 <GO>}

And so we've documented ROI differences, where the total cost of ownership is -- we are basically 12x cheaper. So we are really bringing on a differentiated value prop to the table. And folks like Gartner really recognizes us in the sense that we're like the tippy-top right top corner in their Magic Quadrant now two years in a row.

Q - Mark Moerdler {BIO 16855032 <GO>}

Right.

A - Takeshi Numoto {BIO 21693553 <GO>}

So we're sort of bringing that increased value proposition to the table and really are seeing an opportunity to growth the business, both from our existing base but also by taking share.

Q - Mark Moerdler {BIO 16855032 <GO>}

Excellent.

What do you see as the key differentiators in the new version of SQL Server that could drive further adoption?

A - Takeshi Numoto {BIO 21693553 <GO>}

Well the total -- the TCO [ph] value difference in the capabilities (inaudible) I just talked about, I think, in and of itself, is a big lever. Another one that's worth talking about. And goes to my previous statements around hybrid, is that we really are thinking deeply about what it means to deliver hybrid capabilities. So in SQL 2016, you can actually deploy SQL 2016 on-prem and have some basically set policies on what portions of your table getting drifted [ph] and stored in the cloud, while your application can remain unchanged, where the database would basically provide a unified query back from the data that sits across your on-prem in cloud.

Q - Mark Moerdler {BIO 16855032 <GO>}

Right.

A - Takeshi Numoto {BIO 21693553 <GO>}

And that's an example of how we're delivering a true example, a really rich example of hybrid use cases, where our on premise sales motions can really catalyze also a dialog around the cloud in a way that makes sense for the customer.

So it's not -- SQL 2016 isn't just a growth opportunity for SQL for the license business per se. But it's also a great way to engage customers in the cloud.

Q - Mark Moerdler {BIO 16855032 <GO>}

Excellent.

Office 365 -- you have the E3 version, you have the E5 version in the market today. What do you see as the core things that are driving -- are going to drive people to E5? And is that where you end? Is there future possibilities of keeping to expand up the market in terms of capabilities and price?

A - Takeshi Numoto {BIO 21693553 <GO>}

There are two answers I have on that, actually probably three. One is, of the Office 365 E5 motion per se, within that sort of product dialog, we're just seeing a tremendous amount of customer reaction, particularly around our security value propositions. Because we approach security not as a bolt-on product but essentially intrinsic to securing the workload. And customer customers want the secure Office 365 workload.

Q - Mark Moerdler {BIO 16855032 <GO>}

Right.

A - Takeshi Numoto {BIO 21693553 <GO>}

The security elements of Office 365, particularly on things like advanced threat protection, is really resonating. And that security portion of the E5 rally [ph] proposition, I think, is going really well.

Then, we can certainly do a lot more to accelerate the adoption of essentially the analytics and voice capabilities, where we are really happy with the fact that the way we're participating in the market -- these are all big market opportunities where we have an opportunity to grow both in terms of advanced analytics in BI and also voice. And having E5 as a vehicle to do that gives us a lot of opportunity.

Q - Mark Moerdler {BIO 16855032 <GO>}

Excellent. Okay. So E5 gives you opportunity, especially on the security side. And we're heard that earlier today from another speaker on how much that is resonating, security and compliance, et cetera. Analytics seems to be a part of it. How important is the voice off [ph] capabilities within E5? And what more can you do there?

A - Takeshi Numoto {BIO 21693553 <GO>}

I'm not sure I'm sort of the best person to talk about our opportunity in voice. Again, it's a huge opportunity that has a horizontal application that essentially is necessary. It's not something that a small population of your employee needs; it's something that everybody needs.

Q - Mark Moerdler {BIO 16855032 <GO>}

Right.

A - Takeshi Numoto {BIO 21693553 <GO>}

And that has a lot of resonance and compatibility with the way we general sell off into the cloud. And so we're just generally bullish on the opportunity.

One other thing I'll talk about in terms -- in relation to E5 is that only is Office 365 E5 a great opportunity. But we're also helping the Company rally around, particularly around this notion of security by creating an offering called Secure Productive Enterprise --

Q - Mark Moerdler {BIO 16855032 <GO>}

Right.

A - Takeshi Numoto {BIO 21693553 <GO>}

-- that really makes it easy for customers to buy essentially our products across Windows, Office. And EMS altogether.

Q - Mark Moerdler {BIO 16855032 <GO>}

Right.

A - Takeshi Numoto {BIO 21693553 <GO>}

And that essentially, from an upsell opportunity from a security perspective. And making it easy for customers to buy and transact with us, a way, a solution that essentially protects their Windows device, protects their mobile device, protects their Office 365 environments across their endpoints -- that actually is something that we're very bullish on.

Q - Mark Moerdler {BIO 16855032 <GO>}

Excellent.

Let me see if there's another question from the audience. Then I will continue. Yes?

Q - Unidentified Participant

(technical difficulty)

Q - Mark Moerdler {BIO 16855032 <GO>}

Question is on the Azure Stack and where you are. And what the customer feedback has been.

A - Takeshi Numoto {BIO 21693553 <GO>}

The customer interest and feedback on Azure Stack has been tremendous. We've just seen -- I forget the exact number. But certainly higher than expected numbers we had in terms of the downloads in customers that are trying them out. And we've just dropped essentially a technical preview, too, at a night a few weeks -- a month ago. And the customer feedback and the interest in our strategy of really delivering a hybrid cloud solution, where you can both use the public cloud services that we have as well as create an environment that's highly compatible with what we offer in public cloud on-premises, is resonating really well.

Q - Mark Moerdler {BIO 16855032 <GO>}
Excellent.

So let me ask a little more on Azure, since there's obviously a lot of questions in this space. Azure accelerated this quarter, being obviously quite bullish on the opportunity, companies building more datacenters on it. What is driving it? Is it simply the fact that you're moving a little farther in in the innings. And there's more people driving adoption? Is there some other magic going on in here?

A - Takeshi Numoto {BIO 21693553 <GO>}
I think it's sort of combination of three factors. One is we are seeing quite healthy growth from our existing customers.

Q - Mark Moerdler {BIO 16855032 <GO>}
Right.

A - Takeshi Numoto {BIO 21693553 <GO>}
So once customers get going on Azure, month over month, year over year, the consumption from the customer we've already acquired for Azure is going well. And that's the big driver of our consumption growth.

Another one, of course, is that we are really focused, in addition to consumption growth, acquiring new customers. And I talked about 200,000 new subscriptions. And that's sort of a metric we can look at in terms of what's the velocity of the customer acquisition. Because we all need to get customers started.

Q - Mark Moerdler {BIO 16855032 <GO>}
Right.

A - Takeshi Numoto {BIO 21693553 <GO>}
Initial consumption might be small. But we have to get them going as quickly as possible. So that that can grow over time.

Then, thirdly, as consumption grows, we are seeing a really healthy growth in our premium services. As the consumption growth happens in the customer, their use patterns and use cases become more sophisticated. So perhaps it may have been originally just sort of the base compute storage and network initially. But we're seeing good growth in things that we call Azure Premium Services, like database services or advanced analytics services or machine learning services. And we're seeing, I think, nine consecutive quarters in terms of [ph] this growth on those premium services. That essentially is catalyzing consumption growth.

Q - Mark Moerdler {BIO 16855032 <GO>}

Excellent. And that move up the stack to the more premium versions -- what are the things that are going to continue to drive that coning improvement in premium? And what can be done to add to that capabilities?

A - Takeshi Numoto {BIO 21693553 <GO>}

Well I think it's three things. One is we certainly continue to have to invest in our product and make the product richer and better over time. Secondarily, we're seeing a nice ROI from some of the sales investments we've made, in terms of really having dedicated resources that can engage deeply with customers in how they can use the cloud in deeper and more sophisticated ways. And continuing to sort of drive good returns from that is another one. And thirdly is the work that we're doing here under our ISV ecosystem, where the more -- we have all this tech. But then what are the solutions that ISVs and partners and SI partners build in terms of practices that deliver value to the end customer? And building that ecosystems while they're growing [ph] can further accelerate that consumption.

Q - Mark Moerdler {BIO 16855032 <GO>}

Microsoft's always been a very partner-centric organization. Obviously, initially you were selling the cloud for downloading direct. Now you're selling, I guess, a lot through the cloud. How do you see that mix? What do you do to keep driving that ecosystem to get bigger and better?

A - Takeshi Numoto {BIO 21693553 <GO>}

You're absolutely right. We have a strong DNA as a company in being very partner-centric. And it's really important for the cloud. Because particularly when you think about a product like Azure, it's not like end customers wake up and say I want a virtual machine, or a database. It's all in furtherance of a solution. And that solution comes in the form of a solution that the customer develops by themselves. But more likely, it could be from an IV [ph] or an SI partner implementing before them.

And so the notion of really cultivating a partner ecosystem to be able to better take advantage of cloud and where we [ph] invest is important to us. And that's part of the reason we're investing in new business models like CSP Partner Program, which enables our partners to essentially deliver a finished service from their end, building on top of Microsoft Cloud service, not just Azure but also Office 365 and Dynamics 65.

Q - Mark Moerdler {BIO 16855032 <GO>}

Most of the SaaS vendors haven't to this point taken a direct-only model. Most of the -- many of the infrastructure PaaS vendors have taken almost a shopping cart -- pick a couple of these things and dropping. Why do you have -- can you drill a little more the advantage of the approach you're taking today and what the long-term payouts to Microsoft is from that?

A - Takeshi Numoto {BIO 21693553 <GO>}

Well there are two ways to think about it. One is we certainly would like to engage with these SaaS vendors of the customer --

Q - Mark Moerdler {BIO 16855032 <GO>}

Right.

A - Takeshi Numoto {BIO 21693553 <GO>}

-- so that they deliver their SaaS, perhaps even unbeknownst to the customer that it runs on Azure. But it's Azure (inaudible) their needs. That's a key engagement model for us. And we announced, since our partnership with Adobe as an example, where they're bringing their marketing cloud, document cloud, creative cloud -- those are all SaaS solutions -- to Azure. And that's an important opportunity for us. But at the same time, like I said before, no apps, particularly in the enterprise, can live in a silo. That data has to be shared. And the application has to integrate with other systems.

And so there is an opportunity for us to basically provide a platform that both SaaS application vendors and customers use collectively so that they can share data. And that, I think, is sort of the best of both worlds.

Q - Mark Moerdler {BIO 16855032 <GO>}

Excellent.

So you've obviously -- you started out with a purely Microsoft-centric offering in Azure. You've expanded it by adding third-party and open-source databases and other technologies. How do you think through what to add, when to add it. And whether you add it just simply as something that is available on virtual machine versus something that's more of a platform play?

A - Takeshi Numoto {BIO 21693553 <GO>}

I think we are certainly striving to be incredibly feedback driven. Rather than having teams sit in Redmond and think about what technology to add next, we actually have a lot of signals we get from our own consumption. We can see, okay, where are people stuck in their consumption? Can we improve their documentation? Can we improve better [ph] samples? Can we -- we have so many points of data to be able to collect.

Even in our own documentation -- I don't know whether you know this. But all of our core documentation now is on GitHub. And anybody in the community, anybody on the internet, can basically sort of give us feedback on, hey, we need things like this, or we need more capabilities like this, or you need to document how this is done. And essentially, that can be commented and get us in an open way. And our teams look at it and then say -- hey, how can we actually take that as a feedback to either improve our documentation to include the way our products are presented, or essentially change capabilities of the product?

And I think we're being really feedback driven, given that we now feel like we have critical mass of footprint in each of our communities. GitHub recently gave us an award for being one of the biggest contributors to their code base, because we also contribute to their code, too. And so this engagement model that we have with a broader set of communities in being really feedback driven is, I think, the way we're going to drive it.

Q - Mark Moerdler {BIO 16855032 <GO>}

And so the same feedback type loop is being used as to -- we need to add ZYZ's brand Linux or some open-source or some NoSQL database -- it's based on customer interest?

A - Takeshi Numoto {BIO 21693553 <GO>}

Absolutely. Yes. Totally.

Q - Mark Moerdler {BIO 16855032 <GO>}

And so the more the customer interest, you're constantly monitoring that to make a decision of it. And the way you think about it -- I don't want to put words in your mouth. But can I ask, does Microsoft think about, purely from a consumption model. And therefore whether they're consuming someone else's or they're consuming Microsoft's, that something we want to chase after?

A - Takeshi Numoto {BIO 21693553 <GO>}

Yes. I think, like I said, we've gotten really clear, typically around Azure, that consumption is our prime directive.

Q - Mark Moerdler {BIO 16855032 <GO>}

Right.

A - Takeshi Numoto {BIO 21693553 <GO>}

And so, of course we like our own software, too. We love it. If people use our software in our cloud, that's kind of the best case.

Q - Mark Moerdler {BIO 16855032 <GO>}

Right.

A - Takeshi Numoto {BIO 21693553 <GO>}

But at the same time, we are going to basically be clear on the fact that it's -- prime directive is consumption. So particularly for many of our customers, it's not like they're really picking between two technologies. They already have a preferred technology. And they're saying -- hey, how can I use Azure for this?

And so it really makes sense for us to basically be where they are. And sort of basically try to embrace all the things that people want to do, whether it's OSS

technology from a language and framework or operating system standpoint, or database standpoint; and be as big-tented as humanly possible.

Q - Mark Moerdler {BIO 16855032 <GO>}

So is that the reason why the push to have SQL on Linux?

A - Takeshi Numoto {BIO 21693553 <GO>}

That's certainly one of the elements. We also saw a great opportunity to add value, frankly. Because some of the capabilities we have in SQL is really, really great. And how do we actually deliver it to more set of developers so they can write applications that are exploitive of all this in-memory capability or all this advanced analytics capability? And this essentially again addresses the TAM for SQL --

Q - Mark Moerdler {BIO 16855032 <GO>}

Okay.

A - Takeshi Numoto {BIO 21693553 <GO>}

-- expands the TAM for the SQL business.

Q - Mark Moerdler {BIO 16855032 <GO>}

And so, given the market expansion for purely traditional SQL databases to now NoSQL and Hadoop databases and all the rest of it, do you -- how should you think about that? Do you think of this as being SQL opportunity in [ph] the traditional market. And then these other variants into other parts of the market? Do you think of SQL moving into being able to support what was more nontraditional, because you've added some capabilities in that respect?

A - Takeshi Numoto {BIO 21693553 <GO>}

Yes. Well again, we certainly are working to expand the relevance of the product. So when you think about a lot of the capabilities like Hadoop, these added capabilities in SQL 2016, called PolyBase, for example, that allows you to basically write a query across your relational databases and your non-relational data sources in a unified way --

Q - Mark Moerdler {BIO 16855032 <GO>}

Right.

A - Takeshi Numoto {BIO 21693553 <GO>}

-- and then you get sort of a unified result back -- that's another way to continue to essentially expand the aperture in which SQL can be useful.

At the same time, we're also directly embracing a lot of NoSQL type technologies as well. We have things like Dot TV as a service in the cloud. And we've basically made the API for Dot TV compatible with long wave CI [ph]. So that if you're familiar with

long wave TV, you can actually use Dot TV essentially exactly in the same way you're already familiar using long wave TV, as an example.

So across the data technology portfolio, we have a broad base of technology from not just SQL. But other capabilities like Dot TV. We have HD Insights, which is essentially a managed Hadoop service. And even more advanced technologies like Azure Data Lake, which is highly differentiated in the sense that now you have a fully managed service where you can literally put in petabyte objects. And the system will handle sort of a charting of (inaudible) and queries automatically for you.

And so we have this broad portfolio, again all in furtherances of recruiting more applications and data to be leveraging Azure.

Q - Mark Moerdler {BIO 16855032 <GO>}

So given the breadth and depth of what you're offering, can you give a sense of how much of that was traditionally, five or 10 years ago, addressable by what Microsoft sold?

A - Takeshi Numoto {BIO 21693553 <GO>}

I guess, many of the new things, particularly the things that exist only on Azure, probably would not have been addressable previously. These are all net new TAM expansions. And also, when you think about -- this is why I go back to -- don't think just about Azure versus AWS in the sense that the way that really -- I spent a lot of my time thinking about Microsoft cloud holistically.

So for example, Azure Data Lake technology originally sort of started off with some of the capabilities that were originally built for Bing, in terms of having a huge data store that's capable of indexing the internet. And that technology was originally used first-party only for Bing.

Q - Mark Moerdler {BIO 16855032 <GO>}

Right.

A - Takeshi Numoto {BIO 21693553 <GO>}

But now, the market expanded to have more people and require that level of capability. And we figured out a way to essentially offer it as a commercial service on Azure.

And so this isn't just a work of the Azure team showing up in Azure that all of the cross-Microsoft team's capabilities showing up through Azure. Things like face detection or emotion detection is all very similar in the sense that it's essentially a way for Microsoft as a company to surface investments we've made in places like Microsoft research that can now shine through the lens of Azure.

And there's a lot of capabilities that we offer in Office 365 that is essentially engineered by the Azure engineering team that shows up. And so we're trying to be

really customer-centered in the way of don't package and monetize products based on what engineering team did the work, to essentially think more flexibly about -- regardless of which engineering team does the work, what's the best place for it to show up for the customer, whether it's in Office 365 or Azure. And that's why we're really sort of rallying around Microsoft Cloud as a whole in the way we're running the business.

Q - Mark Moerdler {BIO 16855032 <GO>}

And that cloud reaches not just commercial cloud; you're then feeding that into some of the Bing and the Windows Live and the Xbox Live and everything else.

A - Takeshi Numoto {BIO 21693553 <GO>}

Cross-pollenating where appropriate.

Q - Mark Moerdler {BIO 16855032 <GO>}

Yes.

A - Takeshi Numoto {BIO 21693553 <GO>}

But of course, when you make it a commercial offering, you have to go through all the compliance, interpretation (inaudible) that's the value that the Azure team often has in commercializing technology.

Q - Mark Moerdler {BIO 16855032 <GO>}

Right.

A - Takeshi Numoto {BIO 21693553 <GO>}

But I just wanted to give this example of the way to think about how Microsoft Cloud is really a manifestation of Microsoft engineering capacity showing up in a way that makes sense for customers regardless of where the engineering org is.

Q - Mark Moerdler {BIO 16855032 <GO>}

Okay. And that's significantly different from what we saw many years before within Microsoft.

A - Takeshi Numoto {BIO 21693553 <GO>}

I do think this whole notion of being more customer-centric and having engineering output through customers in the packaging that makes sense is something that we're increasingly getting better at.

Q - Mark Moerdler {BIO 16855032 <GO>}

Okay. And your speed to market, in terms of going from an idea to something in there, is that also improving through the changes in the development strategies and processes?

A - Takeshi Numoto {BIO 21693553 <GO>}

Yes. I mean, I've been at the Company 19-plus years.

Q - Mark Moerdler {BIO 16855032 <GO>}

Yes.

A - Takeshi Numoto {BIO 21693553 <GO>}

And at no time have I experienced the speed with which we are delivering new capabilities. In fact, one of the things we're constantly working on is how do we keep our partner ecosystem and our own sellers in field and partners all trained up and up to date on the level of new things coming down at a ferocious rate.

Q - Mark Moerdler {BIO 16855032 <GO>}

Right.

A - Takeshi Numoto {BIO 21693553 <GO>}

And you could argue that's a good problem to have. But it is something we have to work on. Because we want to make sure that the products and the customer representation of the products is reflecting the latest and greatest.

Q - Mark Moerdler {BIO 16855032 <GO>}

Right. Okay. So I guess that's also part of the value prop, is where you can get the clients going from on premise to running either hybrid cloud or pure cloud, for lack of a better word, that the clients are going to be able to get much faster, more capabilities, new improvements, et cetera, et cetera on it. Is that having that feedback into the traditional on-prem customers and driving the acceleration of them upgrading to the latest versions of Windows Server, SQL Server, et cetera?

A - Takeshi Numoto {BIO 21693553 <GO>}

Well that's certainly our intent. And that's what we're trying to execute against.

Q - Mark Moerdler {BIO 16855032 <GO>}

Excellent.

Are there any other questions from the audience? Yes?

Q - Unidentified Participant

(technical difficulty)

Q - Mark Moerdler {BIO 16855032 <GO>}

So the question is, for a Fortune 500 company running on AWS decides to move over to Azure, what's the cost to do it, what's the time to do it?

A - Takeshi Numoto {BIO 21693553 <GO>}

The answer for that is, in many aspects, our conversation with the customers aren't initially about switching what they've already done. It's about -- like your next workload, you may have already done this. But for your next project -- cloud penetration, cloud consumption is happening at such a rate that oftentimes, it's far less about switching. But it's far more about the next opportunity, what's the net new. And increasingly, customers, particularly those that may have invested heavily in AWS is definitely looking at a multi-cloud strategy. They're saying -- hey, I just want to make sure that I'm not single-vendored in the cloud. And I want to be able to manage a portfolio that sits across different clouds.

And that, of course, gives us an opportunity to say -- hey, now you're next project is going to be Azure. Perhaps you should relook the one you've done before. But our first -- the likelihood of success isn't to focus on the switch. But to actually focus on the next workload.

Q - Mark Moerdler {BIO 16855032 <GO>}

So that would imply that the amount of greenfield opportunity is massive at this point, compared to the ability or interest in taking from one cloud vendor to another?

A - Takeshi Numoto {BIO 21693553 <GO>}

Right now, I certainly believe the market expansion and momentum is such that the growth does not initially have to come at the expense of the other.

Q - Mark Moerdler {BIO 16855032 <GO>}

Okay. So that does that mean that we're just not going to see --

A - Takeshi Numoto {BIO 21693553 <GO>}

That doesn't mean there aren't competitive situations, that doesn't mean there aren't competitive bids.

Q - Mark Moerdler {BIO 16855032 <GO>}

Right.

A - Takeshi Numoto {BIO 21693553 <GO>}

There's always procurement experts in every company. And so we get to earn our business for sure. But also, at the same time, it's not initially about always a switch is required for us to win.

Q - Mark Moerdler {BIO 16855032 <GO>}

Right. Okay. Much of it is not switch.

One last question, I think, from the audience.

Q - Unidentified Participant

(technical difficulty)

A - Takeshi Numoto {BIO 21693553 <GO>}

Yes. Let me explain what we've done in terms of essentially simplifying our pricing in October, which is what we really have done. It may have come across as a price reduction. But it's really a simplification, in the sense that we have historically had Azure pricing that was somewhat different based on your contractual (inaudible) used to buy Azure.

And when we basically are seeing a lot of growth, particularly from customers that we may have not traditionally engaged with us before, they may have not -- we've learned that a lot of them actually don't know to sort of check all of our channels of distribution and find out the greatest price. Because they're maybe a startup, they may be a relatively unengaged customer with a Microsoft distribution mechanism.

And so in order to make sure that we simplify our pricing model, particularly for Azure. So that we reach new audiences in the most price-competitive way. Because we were already price-competitive in the way we priced it overall. But it wasn't the most visible on the website. So we just simplified it. So that the website prices basically reflect the offers we have in other channels.

Q - Mark Moerdler {BIO 16855032 <GO>}

Excellent.

So I do apologize, we're going to have to cut in here at this point.

Takeshi, thank you so much, I really appreciate all your time and effort.

A - Takeshi Numoto {BIO 21693553 <GO>}

Thank you. Thank you very much.