Nomura Inaugural Software Conference

Company Participants

- Mike Schutz, General Manager Cloud Platform Product Marketing

Other Participants

- Rick Sherlund, Analyst, Nomura Asset Management

Presentation

Rick Sherlund {BIO 1504922 <GO>}

Okay, I think we are ready to get started. It's a pleasure to have Mike Schutz from Microsoft here today. We are going to talk about the cloud and Azure.

And we also have Zack Moxcey from IR here with us today. And he has asked me to just mention to you that, before we begin, Microsoft may make some forward-looking statements during this presentation. You should refer to their SEC filings for the risk factors related to their business. And that's true whether you are here in person or listening to the web.

Mike, I was hoping that we could get a 101 tutorial from you on Azure. We don't know a lot about Azure. I think it's around a $900 million run rate business, two-thirds of that being Infrastructure-as-a-Service, the other one-third being Platform-as-a-Service. Of course, your cloud business more broadly, if we counted Office 365, I think it's a little over a $5 billion run rate business, which would put you as the world's largest cloud vendor because of the Office 365 SaaS business.

Amazon is much bigger in Infrastructure-as-a-Service. In Platform-as-a-Service, there is not as much competition. But there is a lot more value add I think we can get from Microsoft because you have some incumbency advantage. You got millions of people that write for .NET. If you got all that infrastructure. And the fact that you have a hybrid cloud strategy. So I as a user can say, well, maybe I will put some of that in your cloud, some of it in my cloud. It all works together.

If we could maybe just get you to talk a little bit about Azure, what is Microsoft doing in the cloud. And give us a bit of a competitive assessment and differentiation, that would be a good place to start.

Mike Schutz {BIO 5995559 <GO>}

Absolutely. First, I want to thank you for having us. This is an exciting first event. And so we want to really thank you for letting us participate.

There was a lot of detail built into that lead-up that you said. So I think it would be good for us to parse that out as we go through the conversation. But by way of introductions, I run product marketing for what we call the Cloud Platform solutions at Microsoft. And so that includes our private cloud solutions around Windows Server, Hyper-V. And System Center on virtualization and management; our public cloud platform and Microsoft Azure; and then our Enterprise Mobility solutions. And so, we'd love to touch on -- base on some of those because they are all interrelated in the eyes of our customers. And so we will talk about some of the things we are doing there.

To answer your question in terms of the rough 101 with respect to Azure, Azure is our public cloud platform. It provides Infrastructure-as-a-Service, Platform-as-a-Service, as well as a number of other high-value services that are around it. And so customers will look to us to run their applications and workloads. But also to connect to their existing infrastructure that is on premises up to the cloud. And I will be able to talk a little bit more about that.

It's, very high level, focusing on helping customers embrace the public cloud with -- integrating with their existing investments on premises.

You asked about how -- from a differentiation perspective how we look at it. You really have to zoom back a little bit because our focus is to provide the most complete Cloud Platform. And so what that means is we want to have the broadest set of solutions for our customers to use on premises and off by providing a consistent set of technologies so that customers can build and run their applications in the cloud, on premises, in any combination, whether that's Infrastructure-as-a-Service or Platform-as-a-Service.

Then we try to connect those clouds. We provide a set of services that provides the connective tissue between the on-premises data center and the public cloud data center.

Within that lies our fundamental differentiation. And that's on three dimensions. The first is around what we refer to as hyperscale. We have the broadest set of regions worldwide from any public cloud provider, at 19 regions. By way of comparison, that's about twice as many as AWS. And for a Google's Cloud Platform, it's about 3 times that of Google.

What that does is it puts Azure as close as we can to our customers. Customers care about that. They want to have their cloud provider in their geography, in their region, for multiple reasons, from a data sovereignty standpoint, geopolitical reasons. But also just from a practicality of an end-user experience standpoint. You can't really change the speed of light. And so you want to have the proximity of the cloud service close to your customers and ultimately their customers.

In order to do that, we've invested significantly in building out this global infrastructure to power our cloud service. And so you have seen us do that over the last several years, increasing our footprint into regions like Australia, into China. We have announced that we will be going into India this year. And so continuing to grow that global footprint so that we can be where our customers are and provide the global reach. But the local touch. That's one element.

Now if you think about hyperscale, there is a couple other vendors that could invest at that scale and have that global reach. But it really does shrink the consideration set for customers because a lot of the traditional on-premises vendors won't and haven't invested in the public cloud at that scale. Once you are through that hyperscale lens, you are down to just a couple of vendors.

Then our differentiation as it relates to the public cloud vendors, like AWS, is really around our focus around being enterprise grade and hybrid. Our roots are deep in selling and working with enterprises. We have a global sales and support organization. We have a partner ecosystem of hundreds of thousands of partners that sell and support and deploy our solutions. And again customers, particularly in the commercial space, want that local touch and that local reach.

And so, that enterprise grade is a key differentiator for us because selling to this commercial segment, the enterprise segment, is nothing new for us and we are excited to help them through the transformation.

Then from a hybrid standpoint, we have that consistent solution across on premises and off that integrates really well and helps customers think about their data center as one -- as an extension of Microsoft Azure. And vice versa. And so they can think about their IT assets as being inclusive of what they run and own. And then what's running in Microsoft Azure. And we have technology to help them extend that.

Rick Sherlund {BIO 1504922 <GO>}

Right. So Mike, I got about three hours worth of questions here, probably. This is exciting to have the opportunity to chat with you about this. As you compete against AWS, for example, what kinds of workloads is it that you are delivering as perhaps distinct from what AWS is doing?

Mike Schutz {BIO 5995559 <GO>}

I think we're both in the Infrastructure-as-a-Service market. And today there is a large number of customers that start with Infrastructure-as-a-Service.

We don't view that as the destination. We believe that Infrastructure-as-a-Service is a great place to start. It's easy for customers to get started there because they understand, because of virtualization, the concept of taking a virtual machine and putting it in the cloud and running it that way.

One of the things that our customers are finding with Infrastructure-as-a-Service is while it's great for certain workloads, it still inherits some of the same complexity that running virtualization on premises does. You still have to manage the operating system inside that virtual machine and so forth. And so thinking about Platform-as-a-Service, as well as moving into hybrid cloud services -- an example is how does someone extend their storage infrastructure on premises to the cloud without necessarily having to move their application -- hybrid cloud services, as well as thinking about Platform-as-a-Service, are areas where we do distinctly differentiate.

Rick Sherlund {BIO 1504922 <GO>}

Amazon is going to start disclosing their margins in AWS this quarter. Someone at Gartner had said they thought they had maybe as much as 60% gross margins. I stopped and said, excuse me, you said 16%? They said, no, no, 60%. And I was kind of astounded by that because you keep seeing it referred to as commodity business. But they have such enormous scale. I guess it's possible, because of the scale that they have, they could get those kinds of margins.

But longer term, it would seem that Platform-as-a-Service is where, at least for everybody else, the fatter margins are going to be because the value add is higher. You are managing the infrastructure -- the platform yourself, if it is on AWS. But if I go to a Platform-as-a-Service vendor like Microsoft, you are managing the operating system, the database, the whole middleware stack for me, right. So it takes a lot of that complexity out.

If I just have test and dev, I use Amazon. If I want to run my own applications and I don't really need your infrastructure, AWS has enormous scale and reach.

But do you have an incumbency advantage here because everyone already runs Microsoft or Oracle infrastructure? Should there be some inherent advantage you get in Platform-as-a-Service because of that incumbency advantage that you might have?

Mike Schutz {BIO 5995559 <GO>}

Azure, as you know, really started in Platform-as-a-Service. It was where the design point for where we believed the market would go long term. And then subsequently we have built out the infrastructure, the service offering, to meet with customers where they are today.

But certainly we believe that -- and from listening to customers that are doing it and getting the benefits of moving to Platform-as-a-Service. And as you mentioned, we're moving the complexity of managing all the underlying parts, see tremendous benefit and particularly agility that they get from -- for the development organizations to be able to respond to the business more rapidly, because Microsoft is taking and managing that underlying stack from the app down instead of from the operating system down.

From an offering standpoint, we believe we have a more mature offering in Platform-as-a-Service. In addition, because of what you mentioned in terms of the footprint that we have with developers today, we have millions of .NET developers that are building applications on premises and in the cloud every day and millions of developers that are using the Visual Studio tool set to be able to build those applications. And so, we're very much working with customers focused very heavily on DevOps and the developer productivity that Platform-as-a-Service brings. So yes.

Rick Sherlund {BIO 1504922 <GO>}

What I heard you say was initially you offered Platform-as-a-Service. But the market really wanted to do test and dev kind of work. They wanted more Infrastructure-as-a-Service. Do you see that evolving now where the market might be ready to think about using the cloud to handle a lot of these workloads that are kind of outside test and dev that might better leverage your strengths?

Mike Schutz {BIO 5995559 <GO>}

We definitely see that as organizations think about developing their application with the cloud in mind that Platform-as-a-Service is where they are looking.

An example of this is AccuWeather. AccuWeather you'll know as one of the most heavily used weather applications and services. And given the amount of weather you have had here locally this year, I am sure it gets quite a bit of use.

The thing that's interesting about AccuWeather is today on Azure. And they looked at the other alternatives in the market, including Amazon, they opted for Platform-as-a-Service on Azure. Today, they process roughly 6 billion requests per month for weather and temperature forecasting.

They originally started with an on-premises infrastructure. But found that because the usage of their app, of course, follows the weather pattern. And when you have got bad weather coming, it spikes extremely high. They couldn't -- they had trouble keeping up with the scale or building out the capacity to be able to handle or predict what was going to happen.

They also wanted to be able to go out globally. And so what we provided them is a global infrastructure that scales on demand and lets them write less code and manage less of the infrastructure and scale the demands of their customers.

It is extremely powerful. They used to take months to do a proof of concept now they can do in days. It's the agility for them to respond to the needs and feedback they're getting from their customers, it's just tremendous. And that's largely powered by the efficiency they can get from the cloud and Platform-as-a-Service.

Rick Sherlund {BIO 1504922 <GO>}

Is the market ready, I think, to build new things on Azure or are they going to move existing things over? And if they are going to build new, would they pick the .NET platform or would they say, well, Google has got this interesting stuff? There is Pivotal. There is all this other open source platform out there.

Where is there -- is the best opportunity, I guess. And how would you think about this in terms of competing against web native modern programming standards?

Mike Schutz {BIO 5995559 <GO>}

Great. I think one of the things -- the way you can think about it is that Azure, what we are finding, is incremental opportunity for the business, as opposed to replacing applications and servers on premises.

About 40% of Azure revenue -- we have talked about this in the past, about 40% of Azure revenue comes from startups and from ISVs. This is largely a segment that we hadn't sold to significantly in the past. And so by focusing on this segment, as well as enabling the existing customer sector we have in the enterprise to be able to embrace the cloud, presents tremendous opportunity for us.

In that start-up area, there are some organizations that are .NET shops and some that use open source. And so what we have done is strike up a number of partnerships in the market and take a very open approach to embracing open source and Linux on Azure. One of the things that often surprises people is that about 20% of the instances and apps that run in Azure are running Linux.

We recently announced over the last year partnerships with Docker for containers. We're supporting Corel S from a Linux distribution standpoint, as well as a number of other Linux distributions in Azure. If organizations have a preference for Java and node.js and want to build them on a Linux Docker container, we love that.

At that same time, we are also helping our .NET -- millions of .NET developers build modern cloud-based applications using the latest technology.

Rick Sherlund {BIO 1504922 <GO>}

Mike, that's one of the interesting things that new management has brought to Microsoft of this ability to acknowledge that there is open standards out there and we need to embrace those. It doesn't feel necessarily good when you report earnings and you see that, well, you are cannibalizing some of your business. But they sort of have to do it because that's where the market is going.

But I hear really good things from Silicon Valley about Microsoft in the cloud. It seems like Azure is a product that people respect and I think your ability to support open standards takes people by surprise because it's not the history of Microsoft.

But I guess to that degree that you are supporting open standards, you can appeal to the incumbency advantage that you have with all these .NET developers, the ability to -- I don't know if people are going to move workloads to the cloud. But the ability to be compatible and have all the stuff work together. But then appeal to -- because of your scale advantage, be able to appeal to new developers with a platform that is more open standards based, it would seem like you are building this, architecting this, to address both camps.

Mike Schutz {BIO 5995559 <GO>}

Yes. And as you think about how we're building this platform approach that says we want to have the most complete Cloud Platform to run the next generation of applications in the mobile first and cloud first world, that is core to our strategy.

From a shareholder standpoint, we are able to monetize and expand our addressable market by bringing Linux to Azure. We have not been able to think about how would we monetize a Linux deployment in the past. By looking at partnerships with Oracle, with SAP, with Salesforce to be able to run those applications that integrate with Azure and even run on Azure -- non-Microsoft databases running on Azure, at the end of the day it's meeting the customer where they are.

Rick Sherlund {BIO 1504922 <GO>}

Right.

Mike Schutz {BIO 5995559 <GO>}

We certainly believe that our first party application and services are quite competitive. But at the end of the day if the customer decides that they would like to run another platform, we would love to meet them exactly where they are.

Rick Sherlund {BIO 1504922 <GO>}

It's interesting to see the press releases and conference calls where you're working with Oracle; you're working with Salesforce. In the cloud, it is really necessary, right, because you have got to integrate. You got to play well with others because it is the platform.

And if you are just trying to push your platform to the exclusion of things that your customer needs to run, then it's not going to be a suitable platform for them. So that's an interesting environment.

Now you own your own data centers. I have asked Oracle, don't you need to own your own data centers? And they argue, no, no, we can just use colocation, which a lot of the SaaS industry uses. But they will be a competitor in infrastructure and PaaS as well.

Do you need to own your own data centers in this business or is it just that they haven't really gotten to any meaningful scale yet so they're okay using colocation. But ultimately there is important scale advantage that derives from having your own data centers?

Mike Schutz {BIO 5995559 <GO>}

As I indicated earlier, the most important thing is to be where your customers are. And therefore taking that global scale approach is the most important.

Rick Sherlund {BIO 1504922 <GO>}

But can't you do that through colocation as well?

Mike Schutz {BIO 5995559 <GO>}

We will look at any and all ways to get into the market and there will be different factors that we weigh to do that -- some we may own; some we may not.

An example is we have a joint venture in China to be able to bring Azure in China. And so the main part is to make sure that we are able to bring our technology to customers where they are. And there's huge economies of scale when you think about the global scale that we need to deploy at. And so we will work at any and all ways to do that.

Rick Sherlund {BIO 1504922 <GO>}

I think as we look at Platform-as-a-Service, who do you see as your ultimate competitors in that business?

Mike Schutz {BIO 5995559 <GO>}

I think that because Microsoft Azure was early in the market in PaaS, we feel like we're in a good spot. But you can definitely see that Google and AWS are investing in those places.

Then, there are some non-cloud vendors that are investing in Platform-as-a-Service. But it's early days in PaaS. So it's going to be interesting to see how it all plays out.

Rick Sherlund {BIO 1504922 <GO>}

Amazon, I was at their re:Invent conference in Vegas in November and they announced the SQL relational database. But I don't typically think of them as being -- having as much of a platform. They will give you SQL Server, Oracle database. But you own it and run it, right? Do you see them coming up with more and more of their own platform and trying to be a broader Platform-as-a-Service vendor?

Mike Schutz {BIO 5995559 <GO>}

I can't really speak, obviously, to where AWS is going to invest. But we do believe that where our investments have been in terms of building the Platform-as-a-Service layer that is inclusive of data. And then our hybrid cloud approach, will continue to be differentiating the market.

On the hybrid point, we have really -- it is an area that is very different than the other players in the market because our view that customers will have existing investments that they want integrate with as they look to extend their assets to the cloud, rather than a rip-and-replace model.

Rick Sherlund {BIO 1504922 <GO>}

If we look at scale advantage, I have thought you are probably a little under $1 billion in a run rate business for Azure right now. But your Office 365 is run out of the same data centers. Is that right, same infrastructure?

Mike Schutz {BIO 5995559 <GO>}

One of the things that we talk about in terms of the most complete cloud is by having Office 365 and Microsoft Azure as offerings for customers is really important. There are areas where Office 365 is offered where we don't yet offer Azure. But we definitely focus on having the complete solution for a customer (multiple speakers)

Rick Sherlund {BIO 1504922 <GO>}

I am just trying to think of the scale advantage that you have because you have also got Xbox LIVE. You have got Bing. So you have got actually some pretty big scale businesses that I think of as data center or cloud businesses that we -- if we didn't look at those and say, well, that's around a $1 billion business, it probably underestimates the scale opportunity that -- for leverage and margins that you might have.

Mike Schutz {BIO 5995559 <GO>}

From an infrastructure perspective, because of all those properties. And we operate some 200-odd public cloud services, consumer and commercial. And so it's that global infrastructure that is operated by the same team that does provide us learning of how to build a very diverse platform that runs high transactional on one side and very, maybe, high I/O on the other. And so it's provides us a great diversity of applications to be able to learn and build the best platform so that when our customers want to put their applications in our cloud, we can do that.

It also does provide us those economies of scale that come with deploying that really broad global infrastructure.

Rick Sherlund {BIO 1504922 <GO>}

As you go out to the market, if everyone is already running your technology in their business, which almost everybody is. And to the degree that you give them some hybrid cloud capabilities so they can choose where they want to run things, is anyone actually moving that infrastructure over to you or you just, look, it works, just leave it where it is?

But it would seem that having the ability to integrate new stuff in the cloud with the infrastructure that you already run, there would be a very nice complement to getting all that from one vendor.

Mike Schutz {BIO 5995559 <GO>}

Absolutely, I think that's our whole approach is to offer the hybrid cloud solution. And there is -- there are customers who think about, maybe I don't want to run my own data centers over time.

But for the vast majority of customers, Azure is incremental to what they're doing. And so instead of having to provision their infrastructure for max capacity, for Black Friday, they can provision for the average Tuesday and then they can use Azure for their peak capacity needs. That compatibility that we provide makes it really easy to do that.

Another really interesting area for Azure is we are able to increase our addressable market by monetizing and selling solutions into workloads that we haven't before, like storage, as an example. We have a hybrid cloud storage solution called StorSimple. It's called Azure StorSimple that basically plugs into a customer's existing infrastructure. That could be a VMware infrastructure, it could be a Hyper-V infrastructure. And it's just a SAN.

Then what it does is it tiers that data up to Microsoft Azure for backup, for archival. And for replication. And so a company -- for example, Paul Smith in the UK, a pretty well-known retailer, uses StorSimple as their bottomless storage repository for their ever-increasing storage needs on premises behind a virtualized environment. In that model, it's almost like simplistically when you take a picture with your phone, it automatically copies it up to the cloud.

It's the same model for the enterprises. How can we connect the cloud to our customers seamlessly so that the end user doesn't have to know it, IT doesn't have to worry about it. But their ITF that's now are inclusive of what they own and operate and what's running in the cloud.

Storage is one. We have never really been able to monetize storage in the past. But yet that's an area where we are able to think about it now. And again another example of how Azure is incremental to the existing Windows Server and System Center and business on premises.

Rick Sherlund {BIO 1504922 <GO>}

Yes, I think your business is growing over 100% a year. But Amazon, obviously they have much bigger scale, probably around $5 billion or so in revenues right now. At their re:Invent event, they said they were growing over 40% a year. That kind of surprised me because last year I think it was 70% and there were some expectations that maybe it could be 100% this year as they started to really gain more traction.

But Google came into the market a little over a year ago -- or about a year ago, I guess, with a price cut, a pretty hard price cut, about 50%, which is surprising to me that Amazon immediately matched pricing because they have all the customers and they are going to let Google set price in the market.

What is going on? Is this pricing always going to be just some fixed percentage above cost and you're just passing all the benefits on to consumers such that it makes it really hard if you don't have the biggest scale to really get the margins out of this business?

Mike Schutz {BIO 5995559 <GO>}

I think there is a couple different dimensions to think about. One are the core services like compute, networking. And storage and Infrastructure-as-a-Service. And in those, the economies of scale that a hyperscale cloud provider can provide do provide that opportunity to give back some of that to the customers as the vendor scales.

What I think, though, we are seeing at the same time is that the price conversation we're having with customers is changing. They are looking at value and they're looking at the premium services that we can deliver. We have talked about how -- recently about how about 60% of our customers are using -- Azure customers are using higher value services. And that's a key way that we will drive these premium -- this premium value to our shareholders by also offering this value to our customers.

There is a thing like PaaS or the Enterprise Mobility suite that is a per-user entitlement for customers to secure their mobile infrastructure and provide identity management.

And so, the ability for us to meet customers where they are from a pricing perspective and look at the market dynamics there. But also to continue to upsell customers to our premium services is very key to what we are (multiple speakers)

Rick Sherlund {BIO 1504922 <GO>}

It could be it is not that customers don't care about price; it is just that everyone is the same, right, in this market. Now the market is pretty efficient in pricing the storage and compute.

Mike Schutz {BIO 5995559 <GO>}

It also is the realization that that's typically where a customer may start. But then they build around it and they really want to look at the most complete solution to build around that. And so looking at additional services left and right is helpful for them. And it's not just about running a VM in the cloud or a gigabyte of storage at a very cheap price; it's all the other value they can get from it.

Rick Sherlund {BIO 1504922 <GO>}

So it's not so much that Infrastructure-as-a-Service is a good business for Microsoft to be in; it's that it leads to potentially much higher-margin premium services, like Platform-as-a-Service.

Mike Schutz {BIO 5995559 <GO>}

That's right.

Rick Sherlund {BIO 1504922 <GO>}

Okay. I'm going to skip over to one other topic and then we will open it up. This enterprise mobile management, Intune, I know that if I get Office 365, the E3 version, the enterprise version, I think I get a low-end version of Intune that's thrown into that. And if I am managing desktops and laptops, particularly with Windows 10 perhaps coming, I can also get Intune as part of that same console so I can manage mobile devices as well.

It's just that historically we haven't really thought that customers would trust Microsoft to manage their Android phone or their Apple phone. But with Satya onboard now, he seems to be making friends. He plays well with others. So sort of wondering now if maybe Microsoft doesn't have a big opportunity going forward to play well with others and manage those other mobile platforms?

Mike Schutz {BIO 5995559 <GO>}

I think that, to zoom out just a bit, there is two fundamental secular trends in place. One is around mobility and bring your own device. And so all of us are using devices that are multiple form factors, in smartphones and tablets. And we may not have bought those devices. But in addition, enterprises are buying these types of devices, too. So the mobility is absolutely clearly a secular trend.

The other one is SaaS applications. And so in addition to needing to work on and connect to the applications that are provided by my organization inside the Company, SaaS apps. So whether that be Salesforce or Office 365, CRM, Box, Concur, or Workday, you have it, users are bringing their own cloud. And therefore the intersection of cloud-based SaaS applications and mobility presents a real challenge for IT from a security perspective in helping end users be productive from anywhere.

The Enterprise Mobility suite that we have built, that has a combination of mobile device management and mobile application management that's powered by Intune is the name of the service, has data protection by encrypting files with Microsoft RMS.

Then, last, the identity management, the user management is in providing single sign-on to all of these SaaS applications. And providing a control that IT can get by being able to control who has access to which apps, not just the ones that run on prem. But in the cloud, is the multilayered approach that we have taken with the Enterprise Mobility suite. And it's a fantastic companion to Office 365.

And so from a go-to-market perspective, Office 365 and the Enterprise Mobility suite in many ways have become a way for organizations to help users be productive on the devices that they want, using the best productivity apps that they can. And help them secure the applications and data, as well as making sure the user is who they are and they have access to the information, all with a single solution.

Rick Sherlund {BIO 1504922 <GO>}

When Apple ships a new version of the OS, you are available day zero for supporting the Apple products. They have got a relationship with you. They trust in conveying details of the new OS. So you are able to support that right away?

Mike Schutz {BIO 5995559 <GO>}

Both Google and Android and iOS have a set of APIs that all the mobile app and mobile device management vendors use. And so we are absolutely able to work with them to provide the right level of capability when they release those products.

Rick Sherlund {BIO 1504922 <GO>}

Is the relationship with Google as good as it is with Apple in terms of the support that you get from them?

Mike Schutz {BIO 5995559 <GO>}

We work with both companies equally well.

Rick Sherlund {BIO 1504922 <GO>}

So you would say that relative to the other EMM vendors, you don't see a competitive disadvantage being at Microsoft trying to support those platforms.

Mike Schutz {BIO 5995559 <GO>}

No. We have had a great success with Intune as it has matured through the years to be able to now expand the offering to Android and iOS.

Rick Sherlund {BIO 1504922 <GO>}

Windows 10, what is the implication of Windows 10 in terms of managing mobile devices?

Mike Schutz {BIO 5995559 <GO>}

If you think about the other strength that we bring to bear with respect to this mobility trend and Enterprise Mobility is the fact that System Center Configuration Manager, our PC management product, is very highly deployed in the enterprise.

We estimate that two out of every three PCs is managed with System Center. And with System Center and Intune, we are able to provide a single solution to manage any device, whether that be a PC, a tablet, or a phone of just about any flavor, with one console.

That really resonates with IT because they cannot think about silos of devices. But think about how to manage that. That extends with Windows 10. So we will continue to manage Windows on the corporate network really well. But Windows 10 can also be managed as a mobile device using MBM. And so we will be able to provide solutions across PCs, as well as all the other form factors.

Rick Sherlund {BIO 1504922 <GO>}

Great. I am starting to feel a little guilty hogging you all to myself. So why don't we open it up to investor questions? Investors will be a little bit shy. They will probably grab you after.

In terms of the breaches that we have seen, the high-profile breaches. And thinking about security in the cloud, I am sure that must be one of the first questions every SaaS company or every cloud vendor has to address in terms of security. Is there any reason to believe that security is any worse or any better as you move to a company that might have some scale advantages in managing security?

Mike Schutz {BIO 5995559 <GO>}

I think that the scale that we have certainly provides us the ability to see some of the malicious activity and then act on it. One of the things that we do talk to customers a lot about is we view it as -- a lot is about trust.

So in terms of the vendors that we believe customers will look at for cloud, there is a security element, there is a privacy element. And then there is a compliance element.

And so from a security standpoint, we are very focused on providing not just the underlying security of the platform. But also the tools so that organizations can own their own encryption keys, as an example, like who has access to their data. And so by offering a service that we call Key Vault, a customer can bring their own key and

we don't have access to that key. And so they can actually help ensure that the data is encrypted and that they manage their own key. So that is one example of some of the security capabilities we are providing.

Another one is at the user authentication layer. We have got within Azure Active Directory, again, a core part of the Enterprise Mobility suite, is we have some technologies to provide anomalous user behavior detection. Think of it as when a credit card company identifies fraudulent activity on your own -- on your credit card, this is identity theft of a different variety. This is user name and password theft, such that now you have got somebody who might be impersonating you trying to log into the enterprise.

We use some of our own machine learning capabilities to identify if a user is trying to authenticate from two locations where a Delta wouldn't be able to get them there in time and wouldn't be -- it would be physically impossible to that. And we can block that access. We can require two-factor authentication for additional security. And so, security is a big element.

We're also very focused on privacy. You may have seen recently that we received ISO 27018, a really high standard for privacy, as well as some standards in the EU around the EU model clause as well. Privacy is very important.

Then, we focus a lot on the compliance certifications that our customers need, depending on what industry they're in or what geography they're in.

And so, those three elements are really helping the dialogue with customers, especially enterprise customers, as they think about moving to the cloud.

Rick Sherlund {BIO 1504922 <GO>}

Mike, we're out of time. And Zack. Thanks so much for Microsoft for being with us today.

Mike Schutz {BIO 5995559 <GO>}

Thanks so much.