

## RBC Capital Markets Technology, Internet, Media & Telecom Conference

### Company Participants

- Ross MacMillan, Analyst
- Vikas Mehta, Director, IR

### Other Participants

- Unidentified Participant, Analyst, Unknown

### Presentation

#### **Ross MacMillan** {BIO 1994797 <GO>}

My name is Ross MacMillan from RBC Capital Markets. I'm delighted to welcome Vikas Mehta, who's a Finance Director and also member of the Investor Relations team from Microsoft. I know you wanted to make some introductory remarks. So (multiple speakers) that?

#### **Vikas Mehta** {BIO 15971926 <GO>}

Yes. So first of all, I'd like to thank you for this phenomenal opportunity. It's a privilege to be over here. And I'm thrilled to talk to financial analysts and investors. Before we begin, I just wanted to remind everyone that we may be making a forward-looking statement that may be subject to risks and uncertainties. Please review our security filings which describe these risks and uncertainties. With that, we can begin.

### Questions And Answers

#### **A - Ross MacMillan** {BIO 1994797 <GO>}

Great. So one of the things that's maybe less well-known about Vikas is that you were actually a finance manager right at the start of the origination of the Azure business and the Office 365 business. And so I actually wanted to start there because those businesses have become really important for the Microsoft story in the last few years. Let's start with Azure, first of all.

So when you were starting off that full program, what do you think were the key kind of early decisions that Microsoft made around that strategy that have proven to be important to the success of that business?

**A - Vikas Mehta** {BIO 15971926 <GO>}

Yes. So I think that (inaudible) Azure and Office 365 and all of the cloud businesses are having phenomenal success right now. In fact, we are seeing a phenomenal user adoption as well as increase in users that is driving consistent triple-digit revenue growth. But if you look back, a lot of the success right now stems back to the early decisions that we took and the early bet that we made on the cloud.

So if you think about Azure, we launched Azure in February of 2010, which is almost five years back. At that time, industry analysts and competitors thought that this move would be cannibalistic to our revenue. And would be dilutive to our earnings. However, we firmly believed that there was a tectonic shift under way, a shift similar in proportion to what you saw with Client-Server or the PC revolution. And we knew that there would be matching scenarios and overall this would be accretive to our business. So I'd say the biggest and the boldest thing that we did was we fully-embraced cloud. This meant that we had a massive global feel and theme to the cloud.

This was challenging for a number of reasons, because our business model had predominantly been a software license business. And we were shifting it to make it a fundamentally users-based model. Secondly, we were investing millions of dollars in capital expenditures and that meant a number of new things for us. But I'd say we learned a number of important lessons, here.

First of all, it's infused a whole cloud DNA in everything that we did, whether it is engineering agility, or whether it is robust supply chain and operations that we have now. We had a few missteps along the way. But we quickly recovered. And what you see in terms of a lot of success that we have stems back to those early decisions. I'd say it's not easy to be a big cloud player. And you might try to have take your way into it. But you have to live it. You have to build your own infrastructure and over time, success will come.

**A - Ross MacMillan** {BIO 1994797 <GO>}

One of the things that struck me was you stepped outside of the normal boundaries of what was comfortable for Microsoft, such as supporting alternative operating systems like Linux, or for example the (inaudible) with Oracle to support Oracle databases in a Microsoft environment. So when did you come to the realization that you had to be a more sort of open player, as opposed to just playing with the Microsoft set?

**A - Vikas Mehta** {BIO 15971926 <GO>}

Yes. So, our Azure strategy has evolved over time. It started as a platform, as a services offering for Azure. And over time we expanded the vision to make it a cloud that has no boundaries or no limits. And what that means is that we said we're going to address all the different customer segments, whether they are enterprise, whether it is charge up, whether it is leas to enable them to build application across any operating system, across any data set, across any language or framework. And enable it to be used for any device operating system, essentially. And such a broad-

based new vision then Steve was the president of the group. And I think it took three major steps in that direction.

The first one was to make it easy for enterprises to onboard to the cloud, that was through both introduction of Infrastructure-as-a-Service, as well as build a lot of hybrid capability into our platform.

The second was with regard to cross-platform. And it was across the board as I said, on multiple layers, whether it was adding Linux to the mix in a addition to Windows. In fact we have now 20% of Azure that runs Linux. We added a lot of different databases in addition to SQL Server. So now you can bring Oracle database or IBM DB2. And even open-source databases like Mongo, Cassandra, as well as Hadoop. And even on the languages and the frameworks, in addition to .NET you can have Java, or open source languages like PHP Python and you know, that extends up to the device OS, also.

The third, most important thing, was we were very aggressive in terms of partnership. And this extended all the way from big players like Oracle, SAP, IBM, Salesforce, to other players like Cloudera, Hortonworks, Core OS as well as Docker. So all fixes there was to make sure that we give our customers a choice. We knew that enterprises run heterogeneous environments. And in order for us to be the one-stop-shop, we have to provide these to the CIO. So I'd say it has been an evolution. And something which has made us more successful.

#### **A - Ross MacMillan {BIO 1994797 <GO>}**

How important has -- Microsoft's had for some time, some big first-party scale, web scale applications, like Bing, for example. When I think of other players that come from an enterprise software heritage that are trying to think about the cloud, they don't necessarily have that first party web scale application experience. How important was that, to have that in the evolution of Azure, where you saw it today?

#### **A - Vikas Mehta {BIO 15971926 <GO>}**

Yes, first-party applications have definitely been a big structural advantage for us. And if you think about -- fundamentally the way we think about infrastructure is not an isolation of all first-party applications. And if you look back in history we launched Windows Server in the 90s. But the real power came because of our first-party applications, like SQL Server Exchange, SharePoint and Lync. And with every iteration the feedback loop just got better and better. And we were able to create a very good, robust operating system.

The same holds true for Azure, where we were reinventing the infrastructure for our own modern application needs. And as it turns out to be everyone else also needs that. So when you think about our first-party applications we have more than 200 web services at Microsoft. They are diverse and have a very honest skill which makes us see this robust platform.

Let me give you a few examples. If you think about Xbox and Skype, they have millions of subscribers who are actively engaging on the platform. On the other hand, you have assets like Bing and OneDrive, that store petabytes of data. And these are a very diverse set of workloads also which means that you have all the way from CPU simulation for gaming, for Xbox Live, to productivity for Office 365 to applied machine learning for Bing.

So being able to in-house learn from these first-party applications has given us a very phenomenal learning ground to better attack our platform. And then use this virtual cycle to take this learning to third parties and bring efficiency to their applications.

**A - Ross MacMillan** {BIO 1994797 <GO>}

And just on that. So, some of the other competitors in public cloud infrastructure don't necessarily have the legacy of on-premise software. So in a way, Microsoft's in a bit of a unique position. You use first-party web scale applications and services. And you've got this legacy base sort of -- I don't know, legacy, I guess encompasses all the applications. Does that make Microsoft unique today in the sort of strategy and the way that you sell to a CIO/CCO about value prop?

**A - Vikas Mehta** {BIO 15971926 <GO>}

Absolutely. You know, if you think about our strategy, there are three key pillars to that. The first one is hyper scale infrastructure, the second is hybrid strength. And the third is enterprise-grade services. Now, if you think about the traditional players, we have typically not invested in data centers at the scale that we have done. We have 19 regions across the world, which is even bigger than what Amazon and Google provide.

And we are the only players with this hyper scale who also provide the consistency across on-premise and cloud. In fact, if you from a hybrid perspective, if you have a workload on Windows Server, you can easily move that to a service provider cloud or to our public cloud. And essentially we give a very good portability. And finally, the aspect of enterprise-grade services, if you think about the Internet scale providers like Google or Amazon, they actually are hyper scale for sure. But when it comes to providing hybrid and enterprise-grade services, we have a rich and a deep expertise around that area. So we feel pretty good about the competitive position there.

**A - Ross MacMillan** {BIO 1994797 <GO>}

So back to what you started with, which was when you made the decision to go in the cloud, you felt that it would not be cannibalistic. And a lot of it would be additive. And I think what we've all seen in the last year, year-and-a-half, you look at the way you now report your commercial license is growing still. And your commercial cloud businesses are growing obviously very rapidly. But important piece is that commercial license business is still growing. Is that sustainable? I mean, I guess that's the question I get a lot, is at what point do we actually cannibalize? What's your --?

**A - Vikas Mehta** {BIO 15971926 <GO>}

No. I think that's a good question. I'd say that what kept me in the historical tectonic shift that happened whether it was as I said, client-server PC revolution or virtualization, then there was a lot of consolidation that happened or that was a lot of shifts or destruction that happened. But the key point was that it drove a lot of productivity. And with it came an increased spend.

So if you think about IT spend as a percentage of GDP through all those different revolutions, it has gone up and up and up. And we see and we feel the theme, for the cloud disruption, where we feel that there are maximal scenarios that the cloud creates, which were not possible in the earlier world, which would help cloud be accretive rather than be cannibalistic to the overall business. And you see that in your scenarios for example, with machine learning, big data, analytics, etcetera.

In fact, for us we feel that it creates three times more opportunity from an overall IT spend share perspective versus what we played in the prior world. The other important aspect is that the shift from enterprise, from private cloud to public cloud, doesn't just happen in a switch. We have to go through the situation where they first get into hybrid deployment, learn. And checked out what cloud reliability, availability and features are.

And then make that switch. And that's what we are seeing right now, where as they make their switch our revenue for the customer is getting bigger and bigger. Essentially the enterprises are spending more on our stack for the on-premise side as well as on the cloud side. But in the long term, we feel that cloud creates newer opportunities for us and we feel really good about our position right now.

**A - Ross MacMillan** {BIO 1994797 <GO>}

What about the financial characteristics, I guess margins specifically? Simplistically I think the way we think about it, is that provisioning basic elements of infrastructure like use of storage, is a fairly monetized business, or at least the pricing dynamics suggest it is, because they seem to ratchet down rapidly. Whereas, as you move up the scale into some more advanced application areas, perhaps that margin structure is a little better. So could you just help us frame how we should think about how this transition may or may not impact margins. And maybe it's not a margin question as much as a profit contribution?

**A - Vikas Mehta** {BIO 15971926 <GO>}

Yes, I think that's probably the right way to look at it, which is the gross margin dollars as you shift to the cloud. But let me give you a framework about how we think about it. We think about it in three key pillars, the first one is core infrastructure capability, which essentially drives adoption on the platform.

The second is with regard to hybrid. And giving enterprises a way to have on-ramp to the cloud. And the third is with higher-level services where you essentially differentiate.

So then you think about the core infrastructure capabilities. By providing core infrastructure capabilities actually it helps to bootstrap a lot of high level services. So I'd not discount core infrastructure capabilities, it is actually very important for especially the land and expand kind of motion.

We see that a lot with storage, for example, where if we are sort of the provider of choice for storage, then we see newer scenarios and higher level services we will use on the top of that. For example, big data analytics, machine learning, or even tiered storage, tiered cloud storage that for which we have our store simple appliance. So we see a lot of up-sell to these different areas because of that.

The second important aspect I'd like to point out is, sometimes computing storage are just categorized as a commodity for -- but they are not. You can differentiate on those pillars, also. We have our premium storage offering as well as premium compute offerings for high performance compute as well as source simple storage appliance, because that what we differentiated and help us monetize at a batch level.

The hybrid spend is extremely important, as the second point, where because we provide this differentiation and easier on-ramp, we can charge premium for those consistency and common tools that we provide. And finally, the higher level service is absolutely as you go up the stack, whether it is applications or whether it is a differentiated IT that we provide to infrastructure capabilities.

They will give you an edge over others. We have services like media services, machine learning, mobility services, that are premium services. So overall I'd say the mix of that is really critical. But at the same time having core infrastructure capabilities which drive adoption is also extremely important. I'll quickly end by saying that we have a very healthy mixture with over 60% of our customers using the higher level services.

**A - Ross MacMillan** {BIO 1994797 <GO>}

I did want to open up for questions. So if there are any questions from the audience, happy to take them. One here?

**Q - Unidentified Participant**

(inaudible)

**A - Ross MacMillan** {BIO 1994797 <GO>}

Let me just repeat the question, the question's on level of investment to support the growth in the cloud businesses, given the, it's growth.

**A - Vikas Mehta** {BIO 15971926 <GO>}

Yes, I think that's a great question, it goes back to the first question in terms of the challenges that we face as we shifted the business model. It's a very capital-intensive business. We have been spending billions of dollars to raise this, build data centers.

And even expand capacity for a number of these. And that is the reason, the reason why it's such a differentiator for us because not all companies can do that. One, we have a very strong balance sheet. Second, we have first-party applications, as I was mentioning earlier, where it can help us drive that initial utilization of the tiers. And after that we can have third-party adoption and further scale it.

But this is definitely a capital-intensive business. There are only three players that we see in the long-term being able to sustain this level of investment -- us, Google. And Amazon. And as I said, we feel really good because of having both hybrid plans as well as the hyper scale ability to invest in the main infrastructure.

**A - Ross MacMillan** {BIO 1994797 <GO>}

I'll get to the one in the back first?

**Q - Unidentified Participant**

(inaudible)

**A - Vikas Mehta** {BIO 15971926 <GO>}

Yes, I think that's a great question. I say that our objective is to create this unique, complete, comprehensive cloud offering which can cater to essentially all different scenarios as well as all different customer segments. Cross-platform has been a big initiative for us. And we have seen great adoption across the board. So we have a very healthy diverse set of workloads. For example, 20% of Azure is Linux.

Now this is staggering, considering we are predominantly had a Windows Server-based operating system, even when we started with Azure. And secondly, I'd say from a customer segmenting perspective again, quite a diverse mix with over 40% of revenue comes from start-ups and ISVs. So it's not just our enterprise agreements that are driving it. And we have a pretty healthy mix.

Of course, enterprise is definitely an area of strength as I mentioned. We have that vantage point. And we are definitely securing that. In fact, 57% of Fortune 500 uses Azure. And you know, invests in Azure. So you can feel pretty good about the overall spend that we have for the platform.

**A - Ross MacMillan** {BIO 1994797 <GO>}

Yes?

**Q - Unidentified Participant**

(inaudible)

**A - Ross MacMillan** {BIO 1994797 <GO>}

The question is, more recently you've seen IT spend (inaudible) so how well positioned is Microsoft to capture more of the aggregate budget?

**A - Vikas Mehta** {BIO 15971926 <GO>}

No. I think if you look from a holistic perspective over time, you will see that this mobile-first, cloud-first vision really disrupts and creates a lot of opportunities. So if you think about newer scenarios that were not even something you could imagine prior (inaudible), we see some things all the way from for example, farming companies who are you know, not companies.

But people who are involved in farming, use Internet of Things, or cloud technology to understand what are the trends that they need to invest in terms of future agriculture investments or cycles. From all the way to other industries like hospitality or banking, where scenarios were just not possible earlier.

So I definitely feel that these new scenarios are going to expand the TAM. If you think about areas of interest, big data is catching up really fast, Internet of Things is definitely growing. And you see that in our results also where we are, both growing on the on-premise side as well as in the cloud.

And here the second level that's really important is we are growing fast versus competitors. So I'd say that we still feel that the trends are really healthy. And we have this inherent strength to grow both on-premise starts and cloud. But overall in the long term, cloud is a big opportunity area for us.

**A - Ross MacMillan** {BIO 1994797 <GO>}

Back here?

**Q - Unidentified Participant**

(inaudible)

**A - Ross MacMillan** {BIO 1994797 <GO>}

Just to repeat the question. So, of the Windows annuity business and how big it's become over time.

**A - Vikas Mehta** {BIO 15971926 <GO>}

Yes. Well that's a good question. I'd say that if you look at the overall annuity mix for our enterprise businesses, that has kept growing over time. So people have been shifting from transactional to annuity. And that is because of the roadmap. The stronger the roadmap you have, the quicker the iterations that you can make in terms of pace of innovations. The more comfortable the customers are in terms of betting on your long-term. So that's what we have seen across the board.

Now, going back to your question, specifically about Windows, it is a big business for us, as we last said. It's a \$4 billion business for us. And as you rightly pointed it's been growing at double digits. I'd say that it is -- again, the investment in the long-term and the roadmap, that if we can come up with quick iterations and keep raising



the bar in terms of enterprise features, customers will feel comfortable investing in that.

On that point, I'd say Windows 10 focuses heavily on enterprise features. And we are catering to a lot of important scenarios for the enterprise. So we feel pretty good about our volume licensing business on the Windows side.

**A - Ross MacMillan** {BIO 1994797 <GO>}

Right here?

**Q - Unidentified Participant**

(inaudible)

**A - Vikas Mehta** {BIO 15971926 <GO>}

Yes, yes. I think it goes back to the earlier point I made with regards to having a hyper scale infrastructure. And at the same time being able to differentiate. And that gives us a unique balance which a lot of other companies don't have. So if you think about Amazon, specifically, or even Google for that matter, they have good first-party applications and have the ability to create this hyper scale infrastructure.

And over time can pass the benefits back to customers by price, etcetera. We are in the unique position with first-party applications that are diverse and at scale. And hence we also have that ability. But the difference here to there, is that we have this hybrid strength as well as the different theatres in terms of having this long heritage of enterprise-grade services.

So I give you an example, for example, if you even think about the Gartner Magic Quadrant, leadership said we were credited in four of the categories that were there, with infrastructure as a service, platform as a service, X86 virtualization and cloud storage. Amazon was only in two of these. And Google I believe was in none of these.

So having hyper scale is critical, very important. But being able to differentiate and provide a comprehensive cloud platform is -- you know, unique to us. And we are well-positioned from that perspective.

**A - Ross MacMillan** {BIO 1994797 <GO>}

We've run out of time. So thank you so much, Vikas. Great. Great time.

**A - Vikas Mehta** {BIO 15971926 <GO>}

Thanks a lot, Ross.

**A - Ross MacMillan** {BIO 1994797 <GO>}

Thanks.

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