# Barclays Global TMT Conference

**Who:**  Chris Suh, GM Finance, CFO Cloud & AI

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**RAIMO LENSCHOW:** All right, let's start. I know people are still kind of flooding in, as we've had a changeover of tides here at our conference. Chris, good to see you again.

**CHRIS SUH:** Good to see you.

**RAIMO LENSCHOW:** It's now in a different role. Maybe let's start, actually, what is the current role for you? Like how would you define it?

**CHRIS SUH:** Sure, sure, and thank you, Raimo, for having me, here. It's good to see, or good to be back in the saddle, as I was telling Mike earlier today. So, I've been in the current role for two years, just about two years.

Currently, I'm the head of finance or the CFO for our cloud and AI division. I think that most of you would be more familiar with that as largely synonymous with the external reporting segment of what we call the intelligent cloud.

This encompasses, certainly, Azure, which gets a lot of attention, but also our portfolio then includes Windows server and SQL server, as well as business applications, which actually get reported in a different segment, but that's also under my responsibility area.

Then, as you alluded to, the five years previous to that, I was doing the head of IR job, and so it's good to be back out here.

**RAIMO LENSCHOW:** Yes, okay, perfect, and then as you now, from before, Azure is one of the big growth opportunities for Microsoft and everyone is kind of excited about it, but the problem that everyone has is how to kind of frame it, like what is the ultimate opportunity? Have you, now that you're kind of on the other side, in a way, have you come up with a better way, or like *a* way, actually, to kind of help us understand that?

**CHRIS SUH:** Sure, it is, it's such a unique – it's like such a unique time – it's such a unique – maybe it's not unique – it's a unique time in the industry, and I think I feel super fortunate to be able to participate in it. Every company on the planet is thinking about this, what to do with their digital estate, how to think about transforming and moving their workloads to the cloud.

So, it's this once-in-a-generation sort of a time that we find ourselves in. I think Microsoft, uniquely, is benefiting in a couple of ways.

Obviously, there are the secular trends that I talked about. You have this big population of customers who are thinking about how to move to the cloud, for both cost savings, but also to access services and modernize their IT environments and think about accessing security and management features in a way that was maybe inaccessible to them, previously.

So, you have these structural tailwinds, if you will. You have this growing market. We uniquely then continue to be very – we continue to deliver a great value proposition by having this very end-to-end cloud solution story, and by providing the digital – all the assets, all the partnerships and that we've had for many, many years, and that structurally is helping us, and so the TAM is very large.

We can sometimes try to put dollars on it, but I will just say it's – we're not gated by anything from a market standpoint, it's just our opportunity to execute on it and capture that.

**RAIMO LENSCHOW:** That's a German trying to do baseball now, like how do you do it, how do you think about that? It seems like AWS, last week at re:Invent talked about like 4% of the workloads are actually in the cloud versus kind of 96% are still on prem, and so where do you see that kind of – that point in journey?

**CHRIS SUH:** Yes, I wouldn't disagree with it, the sentiment, which is the vast majority of workloads remain not yet in the cloud, and so we are in the early days of the transition. As I said, we feel like we're in a great position, right, because of the rich, longstanding and trusted relationship that we've had with the vast majority of these companies who still are running predominantly on premises.

So, as they think about who their most trusted strategic IT partner will be, I think we have a good shot at being that partner. I think we're in the best position to do so, and so we're very much in this for the long game. As a result, I think we feel great about our market position.

**RAIMO LENSCHOW:** Yes, and then talk a little bit about the evolution of Azure, over the last years, because the AWS guys had a little bit of a head start, but if I look at customer relationships, I'm having now, it's over the last few years, things are really changing, and now your customer relationships are coming through. But, coming from you, being on the inside, how does that evolve, or how is that evolving?

**CHRIS SUH:** Yes, it's interesting. The market has evolved. As I said, I think we feel very good about our position and the momentum in our business, and now we're at significant scale, but still growing at a very high rate, with 63% as you know, in the last quarter.

But, in some sense, like our value proposition and our differentiation hasn't changed so much, right, and so from the start we've viewed ourselves as a very strategic partner, as I said, to these customers. That means the ability to offer this very broad stack of cloud solutions, whether that's from Azure, from the infrastructure side, through applications, Office and Dynamics, and all the way through to our M365 offerings.

So, we have this ability to help customers solve solutions in a very comprehensive way. Secondly, the cadence of innovation. I mean, we continue to launch new products, and we continue to expand the portfolio, to solve all the problems that we've talked about.

But, thirdly, and maybe most importantly has been our commitment to the hybrid approach, and that’s been very consistent since day one. I think you've seen a lot of our competitors embrace hybrid, which I think is a validation that our view of the world is the one that's playing itself out in that way.

But, hybrid, to us, has always meant like hybrid to the core, meaning it's informed the way we've built and architected products. It's informed the way that we've brought services to market. It's really about the consistency of that experience from on-prem, to the cloud, to the edge. Because we've been embracing and committed to hybrid, from day one, I think that's a real differentiator. I think we're really the only true hybrid provider out there that can provide that consistency and that set of solutions from on-prem, to the cloud, to the edge, and I think that continues to resonate with customers. As we continue to have these long strategic conversations with enterprise customers, that tends to be our number one differentiator.

**RAIMO LENSCHOW:** And then talk a little bit, as well, on the Azure side, we talked and Satya sometimes calls out the premium services, but can you talk a little bit about the mix that you see? Because we have some of these, I think there are the mobile products that are part of the – you know, how is Azure evolving from like the different offerings?

**CHRIS SUH:** Yes, it's a good question, and we get this one with some frequency. Azure, as a product family, it's going to continue to evolve. In some sense, it's like the – I think of it as analogous to Office in some ways, right, because Office, historically, was synonymous with Excel, PowerPoint and Word. Then, over time, now it's this Office 365 offer is expansive, with things like collaboration and communication, as well as productivity.

So, in that sense, there's like some analogies that say that Azure will continue to evolve. Today, I think it's most commonly thought of as the core services within Azure, or our infrastructure, with our IaaS and PaaS offerings.

That's been the fastest-growing part of the number that you see when we talk about our Azure growth, externally. That's the faster-growing portion of it. It's the larger-dollar contributor. It continues to be consumptive-based, and so you'll see growth within customers, like year on year, where they continue to move more workloads, they continue to build applications, consuming more services.

That continues to grow and so you're less limited by, let's say, the number of employees, the number of seats, or the number of users. And so, the consumptive part of the business is a part that we're really excited about, obviously.

Then, we have another category of revenue, within that Azure business, that we call either SaaS or per user, at times. It's most commonly thought of EMS, as our Enterprise Mobility Suite, and Power BI. That's all part of that. That's a per-user construct that is gated by different dynamics in the consumptive part of the business.

It's still seeing good, great momentum, I mean, we saw seat growth this last quarter, in the 35%-plus, or I think 36% this last quarter, on a very big base, but that usage growth, we like that business, we have many per-user models, outside of Office, within the Office construct – or outside or Azure, within the Office business and the Windows business, but you'll see that growth continue to moderate with seed growth, if you will, with different consumptives.

But, really, the whole thing is important to us, and that's the benefit of being this very comprehensive cloud provider.

**RAIMO LENSCHOW:** Yes, but in the, I mean, if you look at IaaS and PaaS, I think, in the long run, it will probably be the biggest part for the users because, there, you have like a finite number. So, over time, like that should give you a positive mix effect.

**CHRIS SUH:** Yes, it does. It's larger today, and it's growing faster, and so it's weighted heavily toward the consumptive part of the business. As it continues to grow faster, then the per-user base, the mix will continue to mix up, to your point, and so if you fast forward *x*-number of years, three to five years, or whatever the number is, then the consumptive part will be even a bigger portion of this, right? It will start to replicate that.

**RAIMO LENSCHOW:** Can you also talk a little bit about the premium services? Where are we – like, I'd assume that you have an advantage over some of the others because you already have so much from your heritage as a software company, where everyone else is like I will try an steal it from an opensource vendor and then try to make money out of that, or just try to develop it, but where are we on that journey, on premium services for you guys?

**CHRIS SUH:** Yes, it is a journey, right? It's an interesting space because, as I talked about before, like customers really – they're not trying to solve one problem. They're not trying to solve like, hey, how do I move my compute environment, and that the only thing that they're trying to solve for, as we think about these long-term relationships. Like when a customer commits to Azure to five or seven years, for multi-millions of dollars, they're thinking very holistically about all the services.

Whether they're internally calling them core or premium, it's indifferent for the customer. They have things that they're trying to solve for, and so we're seeing their – you know, the core, the infrastructure side of the business is our mature businesses, it's the larger businesses, just naturally, and therefore it's reflecting growth rates that are more mature, but we are seeing very fast growth in our data services, all these premium services that we talked about.

I'd say that we're starting to – they're still much smaller, but they're mixing that way because of the growth rates that you're seeing. I mean, if we really think about where customers are on that journey, where I talked about the multi-billion-dollar types, and so I mean it is, it is a long-term journey. They don't move everything at once. They move slowly, in a sense, like they move a workload, or we work with them to migrate something. They evaluate what that is.

We optimize. And so, you see this curve that looks like this, and then it optimizes, and then they figure out like what they were going to use and what they're not going to use, and how to then grow, and so you see the curves go like this. It's not a straight line and up to the right, and so from that context, it's very early days, and migration is the first play for the customers.

So, when you think about all of the Windows and SQL environments that are running outside of the cloud, migrating that into Azure, we've got these great hybrid offerings that let them preserve their value and then migrate that.

Then, after they move their environments in, then the next step of innovation, or whatever it is that they're doing, app modernization, or legacy app modernization, or literally building new native cloud applications, like that seems to be the next phase.

Then, of course, innovating on higher-scale things like SAP to workloads and Kubernetes, and all of the things that we're seeing. So, those are the phases in the customer journey, and they're all part of the customer engagement that you have.

**RAIMO LENSCHOW:** I mean, you touched on migration, and that was my next question, actually. It's funny, as you're becoming like – you always have been the trusted partner for many of your clients, and it seems to be coming through, because we are tracking the incremental dollar that you are gaining, and that number is actually increasing, if you look at the bigger field there.

We saw one of your competitors last week, kind of trying to point out like, oh, please, you need to adopt more – you know, like at a better scale, but how is that relationship kind of working into that, like that trust that you have built with your clients, and do you see that coming through in terms of how the contracts are looking, the size of the contracts, how they are getting structured, etcetera?

**CHRIS SUH:** Yes, so we're seeing a lot of positive momentum there. I think you've heard Amy Hood, our CFO, talking about it during our earnings calls. We've talked about the number of $10 million-plus deals that are being signed by customers. It's a great sign of trust in us and of the intent to be a long-term partner.

We use $10 million as an arbitrary line, but there are deals I think that you are all familiar with that have succeeded into nine figures, right? And so those aren't, they're not buying a solution, they're buying a partner, or they're buying into a partnership, a strategic partnership which is fantastic.

So, we are seeing it. Like I said, we are seeing great momentum there. I think we feel great about that. It's so early. That's the thing. We signed billions of dollars of commitments from customers. The real work still left in front is to then partner with those customers, figuring out what their roadmap is for their transformation, working with them both from an architecture standpoint, a technical standpoint, to either migrate something, or to spin up a new project.

To get those – what we call internal – we talk about getting the meters spinning because that's how we measure consumption, but to get the meter spinning, there's a lot of real work to be done with the customer. It's fantastic that they're committed to us to work with them on that journey.

**RAIMO LENSCHOW:** Okay, let's shift gears a little bit. When you bought GitHub, this kind of fit right into kind of the Microsoft DNA because it's all about the developer, and you get kind of deeper in there, but now the question is more around Azure and developers. Have you seen an impact from GitHub being part of the organization? How does that feed into Azure?

**CHRIS SUH:** I like the way you framed that. Developers have been a really important and rich part of our history. Our success, to date, has been in partnership with a very rich developer ecosystem. You're exactly right. It is a really important priority for us.

Before GitHub we've had a very successful developer ecosystem, writing in Azure, initially, but what I think GitHub brings – and, by the way, GitHub operates independently. I think you know that, as well, like this is part of the new model that Satya and Amy have implement with companies with LinkedIn. With GitHub, they operate independently.

Yet, there is still a connection because Nat, who runs GitHub, reports into Scott Guthrie, and the LinkedIn business reports directly to Satya. So, there's the strategic alignment, and yet they operate independently.

I think that's a really nice symbiotic balance between the two because GitHub, at its core, continues to be about their developers and their developer ecosystem and that's been really healthy.

We've continued to see, and I think Satya talked about it in our last earnings – we continue to see momentum growth there, the number of developers has grown approximately 30% in the time that – you know, just in the one year that they've been part of the Microsoft family. The momentum there, as a stand-alone, is really fantastic.

Now, as we think about – like, in some sense, in the last year, what I think is one of the biggest benefits of Microsoft has been more cultural than anything, meaning this notion that Microsoft is an open platform, this notion that we're a great partner, and even with companies that we compete with.

We can compete with a customer *and* go to market together, and I think we can do that in a way that is very graceful, making sense to us now. I think the notion that we've opened Microsoft up, and we've opened ourselves up to a whole population of developers that weren't previously thinking about writing in Azure, predominantly, I think is a super positive move forward on sentiment and the health of the ecosystem, and so that's what's important.

**RAIMO LENSCHOW:** I need to be careful on time. Yes, the one thing that where you started to move ahead of the competition is in terms of the international build-out. I mean, you have more datacenters. I don't know if it's still true, but like you have more datacenters than AWS and Google combined, internationally. Talk a little bit about that strategy, and now that you have that footprint, what does it means in terms of adoption?

**CHRIS SUH:** Yes, so, we do have more datacenter regions, and so I think that's a very – we don't actually know how many data – like –

**RAIMO LENSCHOW:** Yes, sorry, I thank you for the clarification there.

**CHRIS SUH:** But we are, but that has been our consistent strategy from the beginning. We've been very broad, globally, thinking about our datacenter footprint. We've always been of the belief that, in the long run, putting the datacenters into places where customers want to consume the data, provisioning those services, is a strategic advantage. We've built outside datacenters, footprints, broadly, in 54 regions around the world, and that is more regions than all of our competitors.

We think that's a long-term strategic advantage. We think that it's important, right, to do that, but also this means that it does add complexity to this, to the build-out. When we think about the ability to provision those services, though, even though it's more complex, and it takes – you know, the interesting challenge, of course, is that we always – you know, it takes good a signal because it takes months of lead time to build the actual datacenter.

So, you have to have a good signal, and you're in more geographies than we are, and so you have to get precise in that signal of where you're going to be, in terms of capacity needs, six months from now, twelve months from now, twenty-four months from you. You have to do that in a very dispersed geographic way. Those are, it just makes the execution of it more of a challenge, but I think we've done a pretty good job.

**RAIMO LENSCHOW:** As now CFO and I've kind of asked you a couple of financial questions. You do get the questions around gross margins, a lot, and we've talked about substantial increases or improvements over the last couple of quarters, but what do you think, what are the factors that investors should look at as they think about your gross margin profile in the long run?

**CHRIS SUH:** Yes, sure, I think, first and foremost, we try to be fairly transparent about the progress of our commercial cloud gross margins, a lot. That's the most important. As a company, that's the most important measure that we have on gross margins, and we've seen those continue to march up, consistently over time, which reflects the progress we've made across all of the businesses.

That said, as you know, the Office businesses, the Office 365 business is at a more mature growth phase and a more mature phase of its lifecycle, and therefore its margins are closer to their North Star.

So, when you see the commercial cloud numbers continuing to improve, that's really largely driven, right now, by the improvement that you're seeing in Azure, just where we are in our lifecycle. It's at 66% which I think is our last quarter for the commercial cloud number, and that's a pretty healthy number across the whole stack.

That said, we still think that there's continued room for improvement. It really is predicated on the things that we've talked about, which is our ability to continue to expand the datacenter footprint, globally, and how much ahead of the demand, how good that signal is, in all of the geographies, so that you sort of optimize – you know, having enough capacity, months down the road, but also not over-capacity because that gets expensive and inefficient.

It's also in our ability to continue to make improvements on the efficiency of the stack between the hardware and the software, and then there are a bunch of decisions that are more tactical in nature. Build versus lease and how you do the efficiency of power management, etcetera, and that all goes into how you drive real margin improvement.

I would say that, given all those moving parts, we're still confident in our ability to say that our margin structure, we have no – like we don't believe that a different world exists between us and other hyper-scalers, in terms of our ability to reach, to reach industry-leading margins, but it's just that the path there may look a little different for us than for others.

**RAIMO LENSCHOW:** On that subject, if you talk to kind of the tech hardware vendors, God bless them, do you kind of – in the last few quarters started to complain about like, oh, the hyper-scalers are pulling back a little bit, and there was like a negative market signal for them, but then if I look at your CapEx numbers, there's no change.

You actually continue to kind of keep investing at a very healthy pace. Is that more a factor of that you are kind of understanding better like how to position the datacenters, and this could be more white label and stuff like that? Or, how are these two comments correlated?

**CHRIS SUH:** Yes, it's a great question, and I can't really speak to their perspective, as much, but I can tell you what we seen from our side. We continue to be, we continue to invest in all the stuff that we just talked about, and in terms of our expansion. We continue to invest ahead of the demand signals, and so there's no waning of the demand, let's say. There's plenty of demand.

We're always going to try and optimize the efficiency of our stack. That means, or that could mean investing in our own capabilities, to build out the datacenters in a different way, and our efficiency in doing so.

So, from our standpoint, I can't reconcile the comments, I can just say that CapEx continues to be a big investment for us. We see plenty of demand out there on the horizon that let's us continue to make those investments.

**RAIMO LENSCHOW:** Perfect, and I see we have 20 seconds left, and so great timing. Thank you, Chris. Thank you everyone.

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