# Credit Suisse Technology Conference

**Who:**  Rajesh Jha, EVP, Office Product Group

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**BRAD ZELNICK:** Good morning everybody. Welcome back. I'm Brad Zelnick, Software Analyst in Equity Research, here at Credit Suisse, and we are truly delighted to be joined by Rajesh Jha of Microsoft. He's the enterprise – excuse me, the Executive VP of Microsoft Experiences and devices group. The format of this presentation is a fireside chat, and I think in the scope of Microsoft we've got a lot of – maybe we can start with a brief bit of background. Rajesh, you've been with Microsoft now, since the early days, since 1990.

**RAJESH JHA;** Thanks for dating me, Brad.

**BRAD ZELNICK:** You're welcome, but I think it's important to recognize the perspective that you have, over time, and again now leading up Experiences and Devices, which includes Office Devices, Windows Client, New Experiences and Technology and Enterprise Mobility Management. I mean, these are things we touch every day. These are part of all of our lives. Can you give us a sense of your journey, over the years, and I don't want to say all those years, but you clearly have seen a lot of Microsoft in that time.

**RAJESH JHA;** Yes, sure. I mean, it's been a privilege to have been on this journey. I came to Microsoft straight out of school, and I've worked with now all the three CEOs, Bill, then Steve, and then more recently with Satya.

My experience, mostly, has been on the enterprise side, though I have also worked on consumer products, and I would say the most formative years have been the last 10, or perhaps even 15, where we started with the vision of productivity in the cloud.

Even though the Office 365 journey, of which I was a very early member, started about 10 years, Bill had really pushed us to think about productivity in the cloud. We had a product called Netdocs, but you know, what, 15, 16 years ago. Some interesting technology came out of that. We didn't take it to market.

So, I've been on the cloud and what does productivity really mean in the world of the cloud for the last 10 or 15 years. And so today, beyond just Office 365 in productivity and collaboration, I have Surface, I have Windows Client, I have management, security and compliance, and so it's really thinking about the modern workplace for our customers.

**BRAD ZELNICK:** Excellent background, and maybe just speak more about the cloud tailwind. Over the last five or so years, the company has undergone a significant shift, and this has proven to be a significant tailwind for Microsoft as a whole. Microsoft has really embraced a more collaborative relationship with competitors and opensource alike, things that a decade-plus ago we may never have imagined. Can you talk about how your group, specifically, has evolved during that time and what that means for connecting with customers in sales functions, all the way down to your engineering and product teams.

**RAJESH JHA;** You know, it's a great question. I mean, I do think that the cloud has enabled us to really rethink the way we build products. From an end user perspective, if you go back five years ago, we were very application focused. We used to think about mail and calendar and Office in collaboration in real-time communications. Today, we start with a very strong sense of the user at the center. All of us live in a world, surrounded by devices, surrounded by applications, working multiple platforms, and so we start with the user at the center, and then we have the notion called the Microsoft Graph which encapsulates the users' goals, their projects, who they work with, the documents they work on, the devices that they use.

So, we start with that as a core, and then we build our applications, whether it be Office, Teams or video with Stream, and we make them work cross-platform. Then, finally, for the enterprise we think about management, security, compliance, identity and knowledge management. That's the vision. It starts with the user at the center and then goes from there. Whereas, in the past, it really was around application silos.

So, when people ask me, "Hey, what are you doing," or how does this help the users, it helps because no matter what application you're on, no matter what device you're on, we understand the context. We can be intelligent on your behalf. That's definitely the user centricity.

The cloud has also helped us to be much more customer-centric in the pre-cloud world when we had package software, where we used to build stuff, for multiple years, hand it to customers, but too often the customers were – you know, because our products are mission-critical, they would take multiple years to deploy it. And so, the feedback signal for customers would often be years and years after we initially built a product.

Now, we get to co-develop with our customers. When we build new security capabilities or new knowledge management, and you know we have this Project Cortex that we talked about last month, which is how do you unlock the enterprise intellectual properties, connecting people to people and projects and skills. We are co-developing that with customers.

Now, my product team, today, takes full accountability, not only to build stuff, grounded in the customer needs, but how do we help customers be successful in deploying it? And so, I run a team called a Fast Track Team, which is part of the Office and the Microsoft 365 team. These are engineers, working with customers, which we funded to help our customers to get to deployment. But deployment isn't enough, and so we work with our counterparts in sales to help customers successful deploy this value through customer success managers, so the entire lifecycle, ideation, deployment, adoption and feedback.

This has meant a change in our sales, too, where our salesforce now has to be much more outdriven, much more about the business value and less about licensing. Our salesforce is increasing and starting to think about role-based productivity. We're starting to think about industry relevance.

On the partnership front, our customers are going to use multiple vendors, multiple solutions, and you've seen us work with Apple and Google when we build our applications from their platform. Of course, I think you've seen the recent announcement from Salesforce and Adobe on how our clouds connect where it makes sense, and we have a rich API to the Microsoft Graph that allows other ISPs to connect to it, adding value to customers.

So, yes, it's been quite the journey. The cloud has really accelerated the rate at which we're able to delivery value and seeing our customers realize that value, then, as part of the delivery model.

**BRAD ZELNICK:** A quick follow-up, in terms of the development process and development team, it would seem that the cloud and other factors have served to compress the development lifecycle today where things are so much more iterative and having so much more of a collaborative design and iterative process. I mean, this is a very different model than maybe five or ten years ago.

**RAJESH JHA;** I completely agree.

**BRAD ZELNICK:** It's obvious, in the end, for the benefit of the customers, but just in terms of how you run the organization and think about engineering, how does that change the world and the way that you go about it?

**RAJESH JHA;** That's a good question, Brad. I mean, culturally, it was a big transformation. When innovation has a long-lead cycle what you end up having is lots of functional depth because, what I mean by that is, you have a product management arm, an engineering arm, a consulting arm, a sales arm and a support arm. This is because there are such discrete lifecycles in the value delivery change. But, when you are in a faster pace, these start to compress.

My customers, today, on the cloud, they don't care if the issue is a product issue, or was it a support delivery issue, or was it a misconfiguration during deployment, but they are buying a service from us. And so that forces us, internally, to be much more cross functional in how we work and working in a much tighter loop. Whereas, in the past, the collaboration between the different functions was really not the core scenario, but now it is the core scenario.

My engineers are on-call now. My engineers talk to customers far, far more than ever before, and this is because they must. Actually, to be perfectly honest, they won't have it any other way now. It was a big shock in the beginning, but I think any time you make the innovation cycle 10 times faster, every process that we have, every process that any organization has, it has to be completely rethought. We've gone at least 10 times faster, in terms of the innovation, if not, you know, on that order of magnitude.

**BRAD ZELNICK:** Can we dive into some of the products?

**RAJESH JHA;** Yes, sure thing, of course.

**BRAD ZELNICK:** So, earlier this year, at your Build conference, Satya talked about Microsoft 365 as the world's productivity cloud. Why are we hearing so much about Microsoft 365, lately?

**RAJESH JHA;** Yes, our vision with Microsoft 365 is to really have an integrated services that powers the modern workplace, that powers modern education, that powers a small business, nonprofits, and we want to bring that same vision to consumers also.

Let me just talk a little bit about what our investment pillars are for Microsoft 365. Maybe that will help to concretize it. The first, of course, is the delivery of productivity and collaboration services, whether it be Office, or the newer services like Microsoft Teams or Microsoft Stream. That's where the users work together, generating together, collaborating together and communicating together.

Another investment pillar for us is how do we take these systems of engagement, which is Office and Teams, and how do we help people automate their business process, connecting to their business process? How do we take systems of record and connect them to this system of engagement? So, we have a lot of trust on automation and business process connectivity with Microsoft Teams and Power Apps.

Then, from an enterprise perspective, it's about securing, complying with regulations, managing your real estate, managing your data identity, and that's another investment pillar for us. But, at the end of the day, as the digital transformation is just picking up speed, we're still in the early days.

The most important database for most organizations to this graph of the people, their skills, what they're working on, their projects, and how do you connect people to these relevant business processes? How do we get them in the context with their colleagues who have the right skills? How do you connect them to the relevant projects? And so, knowledge management is another core thrust for us.

So, that is Microsoft 365, but to be honest, about two to three years ago, what it was, it was a licensing construct. It allowed our customers to buy Office 365 Management and Security with Windows 10 as one construct. Instead of three products, you had one licensing construct, but now, today, it is an integrative product and increasingly so.

If I'm an end user, launching the Edge browser, doing a search in the browser, the search of my enterprise knowledge, the search of my documents, the search of the Internet, it should all be in the same search world, the same natural language interface. It should work across all of that data.

Today, from a security perspective, the signals that come out from an endpoint, the signals that come out from IoT, the signals that come out from an application's identity, they are integrated. No longer do we have three threat protection stories, but we have one Microsoft 365 Threat Protection. It's integrated from an admin perspective. No longer do you have to go and administer the different apps and different workflows. It's a Microsoft 365 Admin. If you go "admin.microsoft.com," it's the one way to administer stuff.

So, Microsoft 365 is really an integrated product with services that underlies the dial tone for modern work, from communication collaboration, to automation, business process connectivity, knowledge management and, of course, security management.

Now, financially, of course, and as you would expect, customers who are buying into our vision of Microsoft 365 tend to use more of our services. They tend to have higher revenues per user. They churn less. What we offer to our customers is integration, best of breed, but also integrated all together.

**BRAD ZELNICK:** It sounds like a tremendous value proposition for your customer. If we look at the trends of who is adopting Microsoft 365, what would we notice by industry, by vertical, by customer size, or what have you? And, from what you've shared with us, and what was once a licensing construct, or a go-to-market bundle, today, what is so much more and integrated, what's maybe at the tip of the spear, specific to that demographic, driving the value prop for them and the catalyst to adopt?

**BRAD ZELNICK:** Yes, today, as you know, with Office 365 we have a lot of customers in the enterprise that are on Office 365. So, many of those customers take a look at that service, and then we have an opportunity, now, to have them take our management, our security, our Windows 10 commercial integration points, and so customers like Goodyear, they were Office 365 customers, and they are now choosing to be a Microsoft 365 customer.

That's one fact that I see in our customer, opt to Microsoft 365, but there are customers who, today, are using Microsoft 365, where the one thing that I may not have talked about in Office and Microsoft 365 is, Office has traditionally been about information workers, for people like us, but with Microsoft 365, we are bringing productivity and collaboration to what we call the first-line workers.

There are two billion people on the planet who are often the first to touch a patient, to touch somebody on a retail floor, or be it in manufacturing, and they work with knowledge, whether the knowledge shifts, or how to do a process, how to communicate with colleagues, and so we also see customers broadening their coverage with Microsoft 365, beyond their information workers.

So, for example, Air France, is using that for its first-line workers in the transportation industry. We have Mark & Spencer using Microsoft 365 to get their retail employees connected with the information workers and to connect them with each other. They use Microsoft Teams which is a configurable app that brings all the modules together as a means to go do that.

That's another path we see, and so Office to Microsoft 365, we see a broadening of the coverage of the employees that are covered in Microsoft 365, and then we still have customers continuing to move at a healthy clip from on-prem to the cloud, directly into Microsoft 365, from all the versions of Office or Windows.

We are excited about Microsoft 365, beyond just the enterprise. The SMB value proposition, where you give them integrated security, integrated collaboration and productivity, that's compelling.

Traditionally, with Office, we haven't had that much share in the emerging markets, but we are excited with what we can do with Microsoft 365 emerging markets too. Because Microsoft 365 has a great set of applications for mobile devices, and there are economies that are mobile-first or mobile-only, and so with Microsoft 365 we get to extend into them as well.

**BRAD ZELNICK:** You talked about some of the innovations that are driving this integrative solution, already, but I had in my notes to ask you more about how this is driving the combined value proposition. One of the topics that I had written down was AI and Microsoft Graph, to ask you about, but the other was just Edge computing. Can you maybe talk about how that is part of the overall design construct and how you guys are thinking about Edge as it relates to the overall proposition for the offering?

**RAJESH JHA;** Yes, sure, I mean, first let me just talk about the AI stuff. We can go back to what I was saying which is we are now user-center. We are user centered. We are no longer about applications. So, we are able to compute and deliver AI for you, centered on you, your calendar, your tasks, your projects, your documents, and then different applications will manifest that differently.

For example, in Word, if I'm in the healthcare industry, the spellcheck, the grammar check or the critiques know the vocabulary, they know the acronyms, they know the project names in the organization, based on the corpus of the graph, and so it's given you AI, contextual to you, your job, your industry, your specific company.

So, today, if you take a look at PowerPoint, the ability for it to recommend so many of the decks that we create, so much of the presentations we create, where often we have some original ideas, but we want to take some ideas from some relevant decks, wanting to bring it all together, that AI helps you suggesting, "Hey, if you receive the slide you're working on, we'll recommend what are the documents in your corpus that you'll have access to," which may relevant to take slides from.

We measure our success in AI, not based on how many ideas we gave to you, but how many times did it choose to keep our ideas, and that relentlessly gets better and better. In Microsoft Teams, for example, if we are in a meeting, there's automatic transcription and translation. When Satya does a Town Hall, we have AI that's able to snip the video into bite-size chunks, so when somebody is searching for a given topic, they don't get an hour-long video, but they get these specific snippets, relevant to their search teams.

So, AI, and I talked about security and compliance, but I think in our unique value proposition on security and compliance, one of the pillars is the fact that we have 6.5-7 trillion signals coming in, every single day, in the graph, but then we have AI that actually is really trying to think about threat and protection on those signals. Artificial intelligence permeates – and you know, Project Cortex and knowledge management is all about applying AI to these signals.

That, for me, and to your point, Brad, on Edge, the edge computing, I think we architected it that way, both on the Azure cloud and Microsoft 365, where we will run compute on the client, where necessary, so our models can run on the client when you're disconnected, or running the service where it makes sense to overlay our enterprise models atop your personal models.

Office has the ability to both be served from the cloud, directly in the browser, but also run as a native application, whether this would be on your Windows PC, your Mac, your iOS or your Android devices. And so, we'll take compute wherever we can get it.

**BRAD ZELNICK:** Oh, yes, I can speak into Office 365 commercial and, at this point, it's a material portion of the overall Office commercial install base, over 65% at the end of fiscal '19, but chief growth is still very strong at 21%, year on year, or at least the most recent quarter. How should we think about the install base of the Office 365 commercial going forward, and how do you focus on migrating those that are still on premise, versus adding new seats, and balancing those two growth drivers?

**RAJESH JHA;** Yes, I don't think it's a balance as much as an end. I talked about the seat growth. The seat growth continues to come – how I see our growth opportunity here, in terms of going beyond information workers and existing customers, information workers connecting them to the first-line workers, connecting the first-line workers to themselves and to the information workers to the business profits, and that is the driver of future growth in seats and in existing customers.

Then, with small businesses, I think we have an opportunity to reach our share in small businesses, where we have a lot of room to grow there. I talked about emerging markets and our ability to have these productivity and collaboration experiences on the mobile devices. We see that as another growth opportunity.

And then, in terms of the customers that are still on prem, but moving to the cloud, we continue to have enterprise-grade security and compliance features for them, and we continue to add those. You've seen, recently, the Bank of Canada has moved over, as a recent example, as a couple of the capabilities they were looking for are now available in the cloud.

**BRAD ZELNICK:** Got it. Just to switch topics to cybersecurity. Recently, we've just been hearing so much about security from Microsoft and it's obviously a huge area of opportunity in a large and expanding market.

In fact, in the last earnings call, Satya talked about Sentinel and Microsoft Defender Advanced Threat Protection with over 100,000 organizations using Azure AD Premium, where I recall hearing that Microsoft spends over a billion dollars a year on security-related R&D, which just for context is more than two times a significant security company like Palo Alto Networks. This is amazing, but how does Microsoft think about security today from what is a very competitive landscape.

**RAJESH JHA;** Yes, that's a good question, Brad. Let me just start by telling you what we see as the customer context today. First, I feel there is – today, I was just talking to a customer, prior to this meeting, and they were telling me that they have over 150 security solutions. That's not atypical, where if you have this many solutions, it doesn't make you more secure. If you have 150 different applications telling you about incidents, alerts and threats, who is going to stitch them together, which one is really important, and what are you really looking at?

So, the fragmentation of the signals, the fragmentation of the different lenses, this doesn't make you more secure, even as the need continues to grow. The intellectual property creation, which is really what's happening with the digital transformation, whether it be code or data, whether it be documents, whether it be business processes, that is what needs to be protected, but it's too fragmented to be protected today.

Most of the, or I think one of the statistics that I remember is that 80% of the content, existing in an organization today, is not even classified. So, you don't even know what the risk profile is on those things, and we are in the early days of this transformation.

The other thing that we see is, where the rate of change is incredibly fast, right now, in our organizations, but we are still in the early days, where the traditional perimeter is disappearing, the network perimeter – people are bringing in their own devices, there is IoT proliferation and the data generation and code generation of an organization continues to grow. And then you take a look at the talent that is available with our customers to actually reason over these signals, to drive security, there's a huge shortage of people who can do security and incident management, who can do this kind of analysis.

So, our vision with security, I would say, first, we want to make sure we build best of breed. There are well-known categories, whether it be endpoint management, whether it be stream, whether it be identity, we want to be best of breed in these core categories, but we also want to be deeply integrated because when you go back to the fragmentation, it's not just enough to be best of breed. We want to be best of breed and integrated.

The second thing is, we want to build security close to the data, close to the applications, but we want to also extend that to the fact that there's heterogenicity in a customer's environment. So, for example, data leakage protection is built in the core workflows in Office, but we allow connectors to bring in non-Office data to apply the same policies for data leakage protection, the same thing we do on threat protection, and so built in, but extensible.

The third thing which I feel, and like I was saying earlier, it's that we have 6.5 trillion signals, every single day from identity, from endpoint, from applications that we can run cloud-scale AI on. And so, again, with connectors, we can have customers bringing their other signals into the graph that we can reason over.

Finally, we are not going to solve it all. Our customers are going to have multiple solutions. So, we have something called the Microsoft Intelligent Security Graph, where we allow customers to plug their other signals. We have over 50 partners today that interop with the security graph.

So, we are taking a holistic look at security, but I would say security is just one dimension. There's security, then there's compliance. And by compliance, I mean privacy, I mean insider threat risk management. Eighty percent of the big breaches tend to be insider risks, insider threats, rather than outside-to-in, and so how do you classify data, how do you then protect it? How do you overlay the right policies?

So, security and compliance, and of course identity is the core plane that enables these things. And, finally, management and security have to integrate too. Because, if you get signals, where the security signals are telling you about some exposure, across a vast range of devices on the enterprise, the management plane should be able to take those signals and auto-remediate those things. So, we have an expansive view of this.

**BRAD ZELNICK:** Rajesh, a half-hour goes by pretty quickly when you're having an interesting conversation. I want to sneak in one or two more quick topics in the view minutes we have left. Just, in terms of Teams, Teams has had significant success with deep integration with your Office products, and you are now larger in daily active usage terms, compared to your main competitor, but what is the end game here and why is collaboration so important?

**RAJESH JHA;** Maybe 10 years ago the atomic unit of productivity was what we, as individuals, could go and do, but this is not true anymore. The atomic unit of productivity now is a group. None of us do anything meaningful, just by ourselves. We do this in the context of working with others.

So, the Microsoft Teams, our vision for Teams is like a meta operating system, which it's something that is centered on a group, and the applications come to the group, the right applications come to the group.

Today, the way we compute is, we are not only on a phone, a tablet or a desktop, but you're picking an application, you're trying to get your job done there, and then you collaborate from within the application. You jump from application to application.

With Teams, the vision is you go to the group that you're trying to do a project on, whether the group is an org group, whether it's a project group, and then the right application should come into the group. And so, with Teams, we think of that as the shell that brings in chat, that brings in meetings, that brings in listening, that brings in Office, and that brings in the third-party applications, which bring in the businesses processes.

Because, if you take a look at the UI for Teams, you can extend it, just like the browser, with the tab metaphor, where you can bring in external applications, with the right applications for the right group. That also carries over to the mobile device. The mobile device, today in IT, can configure what modules – say, if I'm a first-line worker in Mark & Spencer, perhaps the application that is showing up in Teams, that shell, if Teams is a shell, I have chat, I have my scheduling module, I have the module that will take a look at my task list, but I don't need to see the meeting module.

So, Teams is like a shell that brings in productivity, oriented to the group. Our vision with Teams is, it's as applicable to the information worker as it is for the first-line worker. It is about productivity, but it's also connecting to business processes. We're very committed to making Teams a powerful platform, allowing third-party applications to connect, just as we have connected Office into Teams.

**BRAD ZELNICK:** That's a very helpful perspective. With just a little bit of time left, at the end of the day, we're financial analysts, or at least I am, but I wanted to ask a question about margins, with Office 365 margins in particular. We've heard you talk about Office 365 margins moving towards a steady state with moderating improvement once the business hits low-70s gross margin percentage, but where are we in that journey, and can you talk about the differences in margin structure with Office 365 versus a more typical born-in-the-cloud SaaS offering?

**RAJESH JHA;** First of all, I will just say Office 365 is a born-in-the-cloud SaaS offering, but I have a couple of thoughts on that. First, if you take a look at the scale of Office 365, I think last quarter Amy and Satya talked about us having more than 200 million active users. Now, if you take 200 million active users, a service that has that many users, and you find a sliver which is – you know, even in our service, with 200 million, if you pick some service with 2 million users, its margin profile is going to be different than the margin profile of something like mail or documents, where there is a real cost to the storage.

So, Office 365 or Microsoft 365, it's such a broad set of services, across so many users, that I don't think that you can compare SaaS services with a couple-million users, against that aggregate of usage patterns. With that, I feel very, I feel we are hard at work on the engineering side with our Azure colleagues, continuing to drive the costs down, increasing the margin, but there is counterpressure. Our customers are using more and more of our workloads. AI is a resource-intensive investment, but we are ready to make that investment, giving value back to our customers.

Now, as you know, E5, our premium offering for our customers, where we have security and compliance and the phone system, we're going to continue to add new value into that, with analytics and knowledge management in Project Cortex. That increases the ARPU and gives us higher margins, but there are a lot of things at play here. Some workloads have a different cause for a file than others. We continue to do the engineering work. AI and consumption are a counterpressure, and then we have premium offerings that continue to increase the margins.

**BRAD ZELNICK:** That makes perfect sense. With that, I think we're out of time. Rajesh. Thank you, immensely, for joining us this year at the conference. It's been great.

**RAJESH JHA;** It was my pleasure, thank you. Yes, thank you, Brad. Thanks for having me.

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