Microsoft Ignite: Jason Zander

Jason Zander, executive vice president, Microsoft Azure, speaks for the Microsoft Ignite 2020 event on Sept. 23, 2020.

BILLY ANDERS (CVP, Azure CXP): Welcome, everybody. I want to introduce myself. I'm Billy Anders. I lead the Azure Engineering's Customer Experience team, also known as Azure CXP.

I'm here today with Jason Zander, executive vice president of Microsoft Azure. And Jason, I'm actually going to hand it off to you for you to give yourself your own introduction here, if you're OK with that.

JASON ZANDER: Awesome. Thanks, Billy. Yeah, no, I appreciate you being here today as well. Billy and I are both part of the Azure leadership team here at Microsoft, and kick this off. I'm the EVP for the group, avid coder and huge Seahawks fan, if you couldn't tell. I'll just throw that out there just in case you missed it. But nonetheless, very excited to be here this morning.

And Billy and I work very closely on the team, have been for years on the Azure team, and I'm excited. I'm coming from my den. I think I've gotten more use out of this place in the last 12 months. I don't know about you, Billy, with your home office. It's a little strange.

BILLY ANDERS: Yeah, definitely in the home office. It's been getting a lot of use these past, what, seven months or so like that. And I'm just fortunate enough that we have a place to work and great technology to enable us to continue to hopefully bring the right products and services to our customers. So very fortunate with that.

JASON ZANDER: I'm totally with you. I do miss -- I miss the office, I will tell you that. I'm in open spaces, you know. I sit across the room from Russinovich, and if I want to have a conversation with the CTO, it's just like, "Hey, Mark I've got a question for you," and you can just go do that. Now, you can schedule a meeting.

I guess the good news about all of this is we've got some amazing tech and there's just so much stuff happening. And honestly, I'm not sure what we would have done even just a few years ago without Teams, without the cloud and all this other technology that we've got. It's really changed stuff significantly in the way that we work.

BILLY ANDERS: Absolutely, and I totally agree with that. I miss aspects of work, particularly walking down the hallway, being able to poke my head into one of the neighborhoods or in a conference and just being able to powwow with the team.

And honestly, I miss actually being able to sit across the table from customers as well, to be very honest, just to be able to have that face-to-face. Again, very proud and happy for the tech, but there's something to be said about being able to, back in the day, all of earlier this year, shake someone's hand and look them in the eye and things like that. But again, happy that we have the tech, but I do one day look forward to getting back to whatever the new normal will be, absolutely.

JASON ZANDER: It makes sense, and thank God we've got the tech and made it available, and we've got actually, like, Microsoft, too.

And Billy, one of the things that your team runs also is our Fast Track program, direct engagement with customers, getting them up and running on projects, new projects they want to go do very quickly.

And I am curious, just given this kind of it was very sudden, everybody needs to work from home, we both have kids that need to actually do school from home, those sorts of things. What kind of projects have you seen pop up with Fast Track that are, frankly, just showing up a lot more frequently because of these environments that we're in?

BILLY ANDERS: Yeah, yeah, no great question. Like you said, due to the COVID-19 worldwide pandemic, we in the Fast Track team have seen massive, actually just unprecedented shift to remote everything. I think it was Satya who said, I think it was April of this year, we've seen two years of digital transformation in just two months of time, at that time. Now we're seven or so months into this and that high demand has continued.

We've already discussed things like Teams, of course, that huge demand that's happened with Teams, but there's been a massive increase in WVD, Windows Virtual Desktop adoption, as well.

If you look at the Azure Fast Track team, all of the work that's gone, that customers have demanded around active engagements, DC migrations, work with data platform, and just moving everyone onto the cloud responsibly, so that, honestly, businesses continue to not just survive, but in many cases actually still thrive in this current normal that we're working in.

Part of all of this has been with this increased digital usage has been a really heightened awareness and need for security as well. The engagements, the projects, the migrations, the modernization of apps and things like that, all of that has just accelerated by a huge amount, and honestly, it hasn't slowed down at all at this point.

JASON ZANDER: Yeah, and it's been great also working with our customers that have been trying to also navigate all of this and which has been great.

I mean, I think from a migration perspective, the other thing that I think is super cool is that I'm seeing a lot of work being done with Windows Server, with SQL Server, bringing those things into the data centers. You've got a lot of workloads there.

And of course, this other part, like part of my goal is to save money. And so, one of the things we're also trying to do -- that's why we actually created the Azure Hybrid Benefits program, because like as you know, Windows Server, SQL Server, those are actually also part of our team. We build the technology. We use it internally to go build our own cloud. So, of course, we run it better than anybody else out there. And with the Hybrid Benefits, you can save up like 86% compared to some of the other hyperscale hucksters and folks like that.

And so, the migration to the data center has been really cool, but I think the other thing that's interesting is that, of course, there's a lot of hybrid out there that people are using today, because it's not like all of a sudden, you just woke up one day and said, my gosh, the cloud, I guess I'll start from scratch. That just doesn't happen. We decided on a day one, hybrid was super important, and we've been doing data center software and running stuff for two decades now. So, of course, that made sense for us. Are you seeing any interest also around that kind of hybrid and the new modes that we're putting into that?

BILLY ANDERS: Oh, absolutely. Absolutely. If we think about hybrid cloud, most customers have existing real estate right now. If we think about whether it be on-prem or particularly with a competing cloud and they want to have a multi-cloud strategy or they want Azure but Azure on-prem, whether it be for data sovereign reasons or things like that, us having just honestly I think best of breed when it comes to hybrid cloud with Azure Stack Hub, Azure stack ATI, Azure Stack Edge, and having all of that available, and again, it really speaks to meeting customers where they are and not expecting everyone to just lift and shift and move everything onto the cloud at any point in time. That has just been huge, and we've seen a great deal of interest when it comes to kind of our edge strategy and our platform and our products and whatnot.

But I'd love to hear, kind of appreciate your thoughts on how you see the edge and how you see Azure when it comes to the hybrid cloud as well.

JASON ZANDER: Yeah, I will tell you one thing I'm super excited about, we announced Azure Arc, A-R-C, and it's something we'll talk. There's some great sessions actually during the show, so highly encourage folks to go take a look at those.

I mean, the key thing, like you said, we want to meet customers where they are. And so if I think about our typical customers that we talk to, you might have VMware on-premises, you've get Hyper-V running in there. You may have some bare metal services, maybe even some other kind of hardware that you've been running for a long time, appliances or something else, and that's kind of your day life.

And there, of course, is a ton of that that you may want to move into the cloud, get those efficiencies we talk about. But at the same time, you don't just stop running your business. I mean, like you need to keep the existing workloads going. Some of them will move. It'll be in the hybrid mode. Some cases you may want flexibility.

And so, Arc, I really love this, I mean, because Arc is designed to do that meet you where you are, but you can also start to invest in one set of assets.

And this one's super interesting, because like you mentioned multi-cloud. If you go off and do multi-cloud, there's kind of a couple of ways to do it. You can use one cloud's management plane, build a bunch of assets and a team that knows how to do that. Then I can do the same thing for the other, and now I've got like two different systems, which is complicated, it's expensive. You can make it work, just you totally can do it, and I guess it gives you that ability to separate.

But our goal with Arc was to come back and do a couple of things. One, we want to really make sure that you can get that management functionality, the capabilities against any infrastructure.

And also, if I think about, like, security and policy and things like that, and with Azure policy, if you think about locking things down, getting into a consistent, you know, set DevOps kind of a pattern, being able to do that once and invest in a control set to keep you secure and figure out how that works, but then apply to all these environments, now I can start to make one investment, and that's why it's called Arc, actually, if you think about it. Arc's kind of the whole thing. That lines you up in a really cool way, because now I can actually do those assets, you know, once I make them enabled, and then I can go. So we've put some really cool technology there. I think that's going to be pretty awesome.

We've got Azure Arc is generally available now. You can handle Windows Servers and Linux servers, and unlike some other tech that's kind of trying to do some of the same things, that tech only really concentrates on one version of Kubernetes and that's. I'm sure it does a good job of that, but we kind of think this should be a broader thing around management and security and things like that as well. Pretty excited about that, about the technology for exactly the scenario that you're mentioning.

So let's think about this, Billy. You had mentioned before around our Azure Stack and edge appliances and stuff like that as well. I think that's another cool area that would be great to talk about, because, as you mentioned, it's also part of meeting people where they are. I think that is a super thing if we think about this.

You mentioned Azure Stack, HCI, hyper-converged, Azure Stack Hub, Azure Stack Edge, making all that stuff up and running. I mean, like there's these cool scenarios that I think really start to light up when I get to have cloud.

I know one of the things you guys do with the CRE, our Customer Reliability Engineering, you're also spending a bunch of time trying to figure out how do we make this stuff symmetric, how do we make stuff work so that when you write a workload, I can deploy it anywhere. I mean, that feels really important to me. Do you hear the same feedback from customers?

BILLY ANDERS: Yeah, yeah, absolutely. That's a really good point there. I mean, that's been probably a primary kind of use case that we're hearing is just what you're calling as symmetrical, just that consistency that customers have been looking for, ongoing across kind of hybrid, cloud, with our edge products, so absolutely.

JASON ZANDER: And I like the fact that we can take Azure Arc that we just talked about, again works with other clouds, works with your VMware, in your existing estate, but also, of course, works with our edge solutions, so the Azure Stack Hub, Azure Stack HCI, Azure Stack Edge, works on the same side of those, and with this point of it is basically the same set of services that can run in both of those places.

And so, I know one of the things that you guys really do and one of the most common issues that people run into is, how do you set yourself up for reliability? How do you set yourself up for consistency? And so, that that notion of being able to deploy into two places, you fail over between them. I mean, you must spend a ton of time actually working with people on the kind of HADR, your high availability, your disaster recovery and all of those sorts of scenarios.

BILLY ANDERS: Yep, yep, absolutely. Absolutely.

OK, so we talked a little bit about Edge. I want to kind of see if we can have a little conversation. Satya yesterday announced the new partnership with AT&T, and I'd love to kind of get your thoughts on that when it comes to just what does that open up for customers and what type of scenarios do you expect that you're going to be seeing with that partnership when it comes to IoT with that announcement?

JASON ZANDER: Yeah, I'm very excited about this. I mean, Satya has done a really good job. He articulates this notion very early on, this intelligent cloud and the intelligent edge. If I start thinking about that, of course, we talked a lot about the cloud, the ability to scale and the technology that we have there. In this case, we get now back onto the edge, so smart cities, smart campuses, vehicles, all these sorts of things.

If you think about it, the big thing that is going to be common here is we're going to have ubiquitous compute at the edge and it requires connectivity, right? I'm really excited about our partnership with AT&T as a good example of this, because, of course, that ubiquitous compute at the edge basically means that we can do a whole bunch of computing work, for example, for my smart building, for my factory or my hospital.

And then, of course, you want connectivity. There's some set of things that I'm going to do local, hot stream processing, time series data coming in, running equipment, making sure the environment is doing very well, stuff like that.

But then, of course, I have to have connectivity so I can do the management, I can do the security. And I want to be able to upload a lot of that data as well, because, of course, you're going to want to get your analytics up and running.

I think that ability just to hook something up and take that, be able to leverage all of this work and this awesome infrastructure that a partner like AT&T has put in place is pretty awesome for that.

BILLY ANDERS: Awesome. You touched on one thing here, and I want to get you to expand on that. Data or the data services that Azure is providing, Azure SQL, Azure Cosmos DB, I'd love to just get your thoughts on kind of the offerings there in the data services space.

JASON ZANDER: Yeah, and the cool thing right off the bat, we can start off with like SQL Edge. Now we've gone to GA with that. This is great because if you think about it, of course, in the data center, the massive amounts of compute power and storage, we can do massive sort of things, and the stuff we've talked about that. But it all starts off with these IoT configurations, with a device that is trying to do something, temperature control or controlling some piece of equipment.

And frankly, being able to have those data services at the edge, I can manage it with Arc, I can do the deployments. These are cases where you're, for example, maybe less than 500 megabytes, not petabyte scale, but that's what it's like on the edge if I have some kind of device know. So we got great support for that.

And as you point out, we can move into the very rich and comprehensive set of technology. Azure SQL, love SQL, baby. It is awesome, awesome stuff. Of course like we own SQL Server. We built it. We've been doing this for 30 years, I mean, like madness. I mean, like and so like the cool thing, though –

BILLY ANDERS: Has it been that long. Has it been 30 years?

JASON ZANDER: Yeah, actually. I mean, I've been at Microsoft for 28. I mean, like I remember we were kicking it around, and you know, and its technology is quite mature.

The cool thing is that as an engineering team, though, we took it and made it into a cloud service, Azure SQL. And so, now you can do hundreds of terabytes and you can have limitless scale across this.

And it's based on exactly the same code, right? In other words, the same engine that you can download and run in your data center on your server is the same underlying engine. It's just that what we have done is we've turned it into something that can then also handle the cloud, have the extra DR capability, and frankly, take a lot of that toil out.

We use the word toil, and it's kind of well understood in the industry. Basically, do I have to do the patch, do I have to do the backups? Well, of course you have to do those things. The question is, can you just let a database-as-a-service do that for you? And of course, that's where we've been doing this.

And believe it or not, Billy, this service is one that we've been building for nine years now and actually running it. And, of course, huge parts of Azure itself are built on top of Azure SQL. I'm not just an owner, I'm a customer. Does that work? No, but it's pretty awesome technology. And I know you use it a lot and the tools and some of the infrastructure that your team builds and supports as well. You need that as well.

BILLY ANDERS: That is awesome. Data is critical. We kind of know that. I think it's kind of the lifeblood of the world, if we really get down to brass tacks here. But drawing insights from that data is really where it's important. We know customers need to make decisions really quickly, they need to make the decisions now, and I'd really love to get your thoughts on, like, our Azure Synapse and our data and analytics products and kind of walk us through some of the things that excite you that the people watching us, you would love for them to understand about those products.

JASON ZANDER: Yeah, because, I mean, like, wow, we've got just an amazing set of tech. You mentioned a couple of right there that really do get me very excited. I might even start off

with also Azure Cosmos DATABASE, because if you think about that kind of your NoSQL datastore, we talk about Azure SQL, massive scale there, CosmosDB also fantastic. I mean, you can basically use one engine with all sorts of different protocols. I can use Mongo, Cassandra, et cetera.

And it's massive, massive scale. I mean, basically we've mentioned Teams upfront and how that has done. Again, an Azure workload built on top of our PaaS services and a great partnership there. Their Cosmos DB usage grew 3x to about 1.4 petabytes.

If you think about the ability to go do that, and again we're talking like a million transactions, sub-10 millisecond latency –

BILLY ANDERS: Wow.

JASON ZANDER: I mean, this stuff is like freaking awesome, right?

And so I can use the APIs that I'm used to, get that kind of scale. Consistency models and everything else were built-in. Again, that was part of the core that was there. Now you start thinking about, OK, I've got my NoSQL database, I've got my relational database. I can take these patterns, my operational systems, we talked about IoT, time series, all these things kind of coming in, and all of this data and underlying estate is really, really awesome.

And it's not even just the tech that we create, because SQL Server is ours, Cosmos DB is ours, but we also have our services for Postgres and MySQL, very popular databases that are out there. And we did also make those. If you think about Postgres, MySQL, we actually did the work to make those massively scale out as well.

And it's 100% compatible, which is pretty awesome. I mean, if you think about this, I see these claims like Spanner can go run Postgres and MySQL. I guess the answer is, if you want to throw away your schemas, get rid of your stored procedures and do a bunch of query tuning, well, sure.

BILLY ANDERS: Sure!

JASON ZANDER: But why not just actually use a Postgres engine that actually is Postgres and actually does work scale-out. Because if you're going to go through the work, I mean, let's be clear, there's cases where you want to adopt a new technology versus what you have. If you want compatibility, use a scale-out PostgreSQL engine like we've got, just use the service. It just works. And if you want to get into something that has different characteristics, like a

Cosmos DB or a Spanner, in our case, then you're going to do some additional work, but you get the benefits for that, and I think Cosmos really shines there.

All the tech is just freaking awesome. As an engineer, I love the scale. There's nothing that makes me more excited than looking at some cool chart that's just like pulling the water out of how much data we can do, how many transactions we can run, and that kind of stuff, which is really, really cool. Excited about all that.

But like you just pointed out, I think the analytics is, like, our key thing, because we have all the data, we can run our systems of record, get our transactions, keep track of the bank accounts, all that kind of stuff, we can do all of that work, product catalogs for gaming even, another great usage case for Cosmos DB and retail shopping sites. But like you said, at the end of the day, we want to actually get the insights out of this.

And so, Synapse, fantastic example of what you had mentioned from before. This is a case where now I can start pulling these things together, because I'm going to need to do this analytics. I got to be able to take a look at it.

One of the things that really impresses me on this stuff, Synapse can do 10,000 concurrent users with no problem. Yes, 10,000. Can you believe that? You know where BigQuery is? It's a hundred. If I start doing these comps on this and you start thinking about analytics workloads, I mean, you've got a lot of people drawing from this, right? I mean, like, yeah, orders of magnitude. I mean, you should be counting commas, not zeros on something like this, right? I mean, like, let's get the right scale. I'm super excited about that. And, you know, have a petabyte level basically TPCH engine that can go do queries at that level with huge amounts of concurrent users and everything else, and then frankly, being able to also then link these worlds together.

The latest one, I don't know if you've played with this yet, man, we've got to do another LTE hackathon, you know --

BILLY ANDERS: Yeah, that'd be fun.

JASON ZANDER: We haven't done one of those in a while. We need to go back and go do that. We all sit down, the whole LT, we get together, we actually spend a whole day together and we all just write code and use product. I love that. And I think Synapse Link and stuff would be a good one for us to all go play with next. Unless we can get some cool IoT devices. We should actually combine the two. Let's think about that. I think that would be a fun day.

BILLY ANDERS: That would be good.

JASON ZANDER: I think it would be fun. I mean, like, but if you think about it, Synapse Link allows you to now start taking your operational and your analytical database and be able to tie that data together in a very, very seamless way, so I can start getting all that stuff in there. And then by the time we're done, of course, the big thing is 94% cheaper, 14X faster. Again, start counting commas. I mean, that's what I'm looking for, I want commas in these numbers. That's what really gives you the sense of edge for your business, don't you think?

BILLY ANDERS: I love it. I love it. I'm going to steal that. I'm going to steal that, the commas term, yeah.

I want to shift gears if you're OK with that. I want to shift gears and talk about AI. We've been laser focused on, honestly, getting AI into just all developers hands, just making it just straightforward so it just becomes kind of part of what you do as a developer to leverage artificial intelligence and machine learning and just data science broadly and things like that, really just kind of helping them get to that time to value as quickly as possible and things like that.

Since I get all of the analyst reports and things like that, and I sit with many of them as well when we're talking about a number of these spaces, I have been seeing that we seem to be doing pretty good with analysts when it comes to AI.

And just you as the leader over Azure, I'd love to for you to share just with people watching us what are some of the things that you're excited about or some of the behind the scenes that have gone into all of this great and evidently well-received AI work that's come out of Azure over these years.

JASON ZANDER: Yeah. It's so transformative, isn't it, when you start pulling in the AI and the ML libraries and everything else, I mean, just the scenarios that you can do.

BILLY ANDERS: Yeah.

JASON ZANDER: I mean, like, it's just amazing. And it is going to be that kind of future.

Of course, having that data and the analytic side, putting all the stuff in place, of course is the mandatory pipeline for all that.

I will tell you, I'm always super-excited because I spent 15 years in dev/div working on Visual Studio, Visual Studio Code, .NET from scratch, the one who did finally project. I'm the one

who named all those DLLs in the directory. If you don't like the name you're seeing, then you can blame me back in the '90s. But, like, I love that.

I love all this work we've done with Git and the ML ops and the way all the stuff comes together, really super great productivity. Data science can work together with our folks that are doing IT admin work, our developers. Like, everybody can come together and actually work in that kind of pipeline, which is cool.

But like you said, I mean, 2.5 billion messages through the bot service is amazing. We've got basically 83% of the Fortune 500 basically using all this technology that's there.

And of course, this is all the same technology we used for our own stuff, right? I mean, so when you think about that, like the one that always just like just blows my mind, I think about HoloLens, right? I mean, like, basically it takes a month to train the holographic model that allows you to actually have photons coming at your face, hit a camera, actually decode and put something on the screen that's projected to me, and my brain can't tell the difference. Like, wow, that's just unbelievably amazing, just amazing technology. And so this is some of the stuff that Microsoft has done. It's massive, billions of parameter models we've done with training and inference and stuff like that. It's just amazingly cool.

And I'll tell you the other thing that's really cool about this, like, when you build these models and it works really better all lined up, it's so easy to make it available to all of your users, right? I can come back with Power BI, right, and I've got – that's already a fantastic tool. I can slice and dice. And I know you use that in your day job every single day, because I know, I used to use the PBI dashboards you'd give me, man. But you can start putting AI underneath of that stuff as well, so it comes back.

And then also, if I think about like Azure Databricks, something that we've done as a first party service, and the first party basically means it's part of Azure, it's not just some download someplace. We've worked with the Databricks team to actually integrate it first class, so now I can get that Spark environment, like, into my Jupiter notebooks, I can combine all these things together, go leverage Git and all the DevOps work that we've got. I can get the entire package working together. And of course, we're making it massive industry leading scale, because we have to, we have to have it for our own stuff.

I mean, like, wow, you got bingo right there, man. That's just like as a developer, I still write code on weekends, man, I don't know about you, but I love doing it, I mean, and just having access to these tools is just really, really cool.

BILLY ANDERS: That is awesome. That is awesome. Cool. This was great, and I do want to -- you know, since you've welcomed me and I assume thousands of people into your den, I do want to ask you one thing. I see a picture above your head, behind you above your head, and wonder if you can kind of share with me, maybe the world, what that is. I know you're – yeah, here it is. What is that?

JASON ZANDER: This is this is my signed Richard Sherman tip picture from back then. This is the NFC championship game with the '49ers. That was awesome. If folks don't remember that, that's when Richard got the tip in the end zone, just seconds left, and actually caused an interception, and then we went to the Super Bowl and then we won. There was a correspondingly super interesting game the next year which was great. Then I went to the Super Bowl. Just give Marshawn the ball. (Laughter.) Even Marshawn last year improved.

I'm not bitter.

BILLY ANDERS: That one still hurts.

JASON ZANDER: I'm completely over it.

BILLY ANDERS: That one still hurts.

JASON ZANDER: Oh, goodness. I don't know, that might take me – that might take me a while, man. It's going to take a while to get over that next year. But nonetheless, it was pretty cool.

So thanks for setting this up, Billy, and I appreciate having the time to chat with you in this forum, and frankly, learn more about our customers and from your point of view as well and what we're doing. It's been a blast.

BILLY ANDERS: Thank you very much. And I appreciate the time. And thank you for sharing with me and everyone here. And I really wish that everyone continues and enjoys the conference. Any other words you want to share or you're good to go?

JASON ZANDER: No, enjoy the conference. I mean, I think this format is amazing. Hats off to the Microsoft Events team. I think they've done an amazing job, obviously, with Build earlier and now we have all the Ignite conference and work that we're doing.

And so, I think keep the feedback coming. It's kind of amazing that it's another example of things that leveraging the technology, things that we probably wouldn't have actually done if not for some of these unique work environments, but things that I think are actually going to

stick around and probably become a permanent part of our format. Another great use of technology and making pivots and figuring out how to make it work for us. So I hope everybody really enjoys the show.

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