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CLOUD REALITIES

CRLIVE 18

AWS re:Invent 2023: Industry Cloud perspectives - Automotive & Financial Services with Keith Mulder, AWS and Melissa Dougherty, AWS

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[00:00:00] You two are playing the sphere. Yeah. These casinos, a lot of U2 tracks also play as well. I would love that. Versus the weather outside is right. , it's still a month ago, right? still November? Yeah. It should be a crime. It's not December yet. Stop it. Stop it. Stop.

Welcome to Cloud Realities, a conversation show exploring the practical and exciting alternate realities that can be unleashed through cloud driven transformation. I'm David Chapman. I'm Sjoukje Zaal, and I'm Rob Kernahan.

And we are on day two in Vegas. Lot going on. A lot going on. There is, Dave.

It's a really busy event, isn't it? It's just literally people everywhere. You are. Which is in a good way. Lots of life. That's right. Lots of [00:01:00] life. That's right. Although, now it's number three for me. A lot more experience, know what to do. I'm savvy. I'm not as like Bright light's, big city. Confused anymore.

I know exactly where to go. No, really ate the secret agent. Roots. The secret agent roots through the conference. You have demonstrated your preparedness for this Robin in multiple ways this week. any look of the mouse yet? No, David, that's that's been a bit of a bust for me, actually. , a disappointing moment.

I feel I, I was so confident and it's just not worked. In this show, I'm delighted to say we're actually going to be joined by two guests. We're going to talk about two different sectors. We're going to talk about automotive first, and then a little later on in the show, we're going to be joined by another guest to talk about financial services.

But before we get to that, let's introduce our guest for automotive, and I'm delighted to say we're joined by Keith Mulder, who's the partner strategy leader for AWS Automotive and Manufacturing. Keith, great to see you this morning. How are you? I'm doing wonderful. So great to see each of you and again to be celebrating the great success here at [00:02:00] re:Invent .

Do you want to just tell everybody like a little bit about your role and a little bit about what you do? Yeah, so from an industry solutioning perspective, AWS is doubling down on helping customers with industry problems. So the partner strategy leader works with great partners like yourselves and figures out where the white spaces are to help with their specific industry solution and their need.

And so that's what the partner strategy leader role does. And we'll talk about it in a second, but automotive, what a sector to work in at the moment, like probably one of the sectors that's undergoing most digitalization and transformation in the market, I would say, it's impressive. And again, I think there's a lot of energy around that and then manufacturing as well.

Really, how do we get to what's next? And software is a big part of that. Look, we're going to come to that in a second. And there's so much to talk about with automotive, but. I've got to raise a really important point, Rob. I can't help but think it's going to be at my general expense, but Actually, it's not.

Is it not? It's a sad, it's a sad thing, isn't it? Yeah, it is. Can you guess what I'm going to say? [00:03:00] Is this a producer incident? No, it's not a producer, it's a, oh, Oh, sorry no, yeah, oh, I don't know what you're going to say. Yeah. Do you know what it is? Tell us. Tell us. It's the monkey. So we have a mascot on the show, which if you've seen us live, we have a monkey that travels with us globally.

It's been stolen. It's gone. Like you walk in, when you come in, there's security guards. You get your bag searched, but our monkey has been stolen. I think somebody thought it was

a freebie swag. Giveaway, and they've gone, oh I love that, thanks. I do, I think that's the generous take on it.

But yes, it, I could see why that mistake might get made. But we I feel a bit, a little bereft. With that monkey's been everywhere with us. I know. All around the world, all around Europe and the U. S. It's, I slugged badly.

It's a jeep thing to leave a rubber ducky on jeeps and they collect it all around the world. Maybe that's the new thing for the monkey. You go find podcasts and you bring monkeys and you just, [00:04:00] instead of having one, you give it away. That's not a bad thought. That's not a bad thought. I thought you were going to suggest that we were going to get one of those situations where we get ransom.

We get ransom texts where they're holding up the monkey with today's newspaper in Sydney or something like that. And we're like, if you want to ever see this monkey again No, pay it forward with a monkey because then the podcast will be like, we have a monkey today, we don't know where it came from, we're not sure why.

And it could be a meme that starts influencing podcasts, right? I like that, you just drop the monkey off and then another podcast takes care of it for a while. Maybe that's the future of the monkey. That could be the future, that could be look, we'll go we'll try and solve that before the end of the week.

So Keith, let's get back to the, let's get back to the conference and the serious business of announcements. So it's, as usual, the last 24 hours have seen some fairly rich announcements, and I'm sure we're going to see more as day two progresses. But what's really resonating for you at the moment?

So the nice part for AWS is we can finally talk about all these great things that the teams have been working on. So one of them specifically within the automotive and manufacturing sector we're proud about is the announcement of the [00:05:00] partnership with Qualcomm. So having an industry specific instance, having that availability, and having that support BMW and their next generation vehicle.

That, that's one big announcement that we're really proud of. The other one that occurred yesterday is the NVIDIA announcement with AWS. And not only from the AI standpoint and the supercomputers and the work that's going on there. The most performant cloud data center that's going to be in existence.

And then in addition to that, the omniverse workloads as we talk about manufacturing. So Metaverse and having that 3D visualization, so we'll have all of that capability with AWS and NVIDIA together. Exciting stuff, and maybe that gets us on to the first major theme that I wanted to cover in the world of, in the world of automotive, which is the connected car itself.

What are you seeing in that world and how do you think some of those announcements might, uh, help drive the innovation in that space? No, tens of millions of cars are already connected on AWS. So that's really the great part, but how do we make that easier [00:06:00] and how do we make that quicker?

And that's always the question. So I know IOT FleetWise is one of our services that's debuted here. We have a number of partner solutions as well, but making that so it's simpler for the OEMs and the people that consume that data to get the intelligence they need to then deliver more features. Because at the end of the day, it's about the customer.

So if I'm connecting my car, why am I doing it? I want to provide something. And that whole connected car experience really changed the whole way you interact with the vehicle, the

types of services you get from it, but also the data and analytics that can be fed back and improve the experience and everything else.

So the car, almost the experience in the car can change as you're an owner of it, as the software gets updated and the way it interacts with the, the user. It's quite exciting. It is. It goes to that point, doesn't it, which is the car becomes almost a software platform in its own right.

Is it like, is it overstretching to say, do you think that the car could be, It's almost like a mobile phone with wheels. That's the term, cell phone on wheels. That's what people [00:07:00] expect because, Back years ago, you didn't expect your car to have that connectivity. You bought it because it looked good.

You've got it because of those other things. Now people are used to their cell phone. They're used to having their apps, their personalization, and they want to use it their way. They expect the same from their car. So the consumer has adapted to that behavior and we need to deliver that in a car.

Yeah. So on that case specifically, so where would you say we're up to in terms of delivering that vision? I can guess that certain manufacturers are actually quite close to that at the moment already, probably. And then where do you see say, over the next 12 months? That going, have you got like an ideal model in mind about what that might look like?

It's great because we're here at Re:Invent and we have an automotive booth in the expo floor space and it's got the brand new i8, the electric i8. And in the rear, not only do you have full massaging seats that recline like a first class airline seat, You're watching a full widescreen connectivity display, and that's all connected to the internet.

So you can get any app you want on there. So if you want to do video conferencing, if you want to watch a movie, [00:08:00] if you want to just that's the type of experience. So I would say, today, we're already seeing it, but now how much more can't we do? And that's really the great part of it. Yeah, exactly. When the car actually flies, that's probably That's where I've got my marker.

Do you not think that would be a new form of chaos? Although the Las Vegas traffic at the moment, because of the Formula One, which has not been so popular in this city, is causing bedlam at the moment. So maybe the flying car is the answer. It would be awesome. It would. It would solve the problem.

I'm not sure though if Marcel was driving, like he drove the other day, where there was a bit of a traffic incident. He's looking the other way now as I look at him. Marcel was driving us in, and let's just say There was a few concerned passengers in his car. Yeah, it was a unique place to do a U turn.

I'm not sure anyone's done one there before. What, you mean a U turn into oncoming traffic? Yeah, it's an unusual choice, isn't it? He needed some more ADAS features to help him out as well. This is where the autonomous car He needed software defined features to help update that day. Yeah, where the car actually [00:09:00] goes, What on earth are you doing?

No, we're not gonna let you do that. This is where, if we did have it from Knight Rider. He probably would have stopped. I'm sorry, Marcel, but I don't think you should be doing that. So let's move on to the second big theme that we identified in the world of automation. And, no no prizes for originality on this, but it's perhaps one of the most important elements, which is energy transition.

And obviously, post Tesla, there's been a huge move forward in terms of battery power.

And there's announcements around extended range in pretty much all of the, in all of the major manufacturers today, which is exciting, like in my mind, it gets really interesting when you get to a reliable 400 mile range, but that's just how I measure my life because that's my house to my parents house.

So it's once it's got that range, it becomes usable to me, thing. But there's also hydrogen coming along which, I think, aren't the, isn't the smart money on hydrogen potentially being the better solution. But what have you seen from your seat, Keith?[00:10:00] And how optimistic are you in terms of that move To clean energy, longer ranges, more reliability, happening in the shorter term rather than the medium term.

Now I love it, and innovation's a constant, and that's what we all know, so charging speed is another factor. We tend to talk about range a lot, and that's because of the anxiety of, I don't want to necessarily charge my car for multiple hours. We're also seeing Prototypes coming out where they're able to charge in minutes, versus ours.

So that also changes the game. So yes, range is going to continue to be a big part of it. And obviously density and weight play a factor in that the consumer preference and the geography, people that are in North America are going to have a lot more needs for range and somebody that's maybe in China is going to have a different need that way.

So you're going to see adaptation that way. And then I love how you talk about the different technologies too, because whether it's battery technology, whether it's hydrogen technology. We're not done. We're just at the beginning of this transition and look at how awesome it is already. Yeah I have you made the move yet? No, I've thought about it. It's the range thing for me. Yeah. Which is the the, if you could get the [00:11:00] charging speed up to a couple of minutes, the convenience is there, then I probably would transition at the moment, but it's the long, the really long journeys having to stop.

I think it's still a barrier for a lot of people. Also, sometimes the charging infrastructure isn't quite up to where it needs to be as well. So there's almost a structural thing that countries need to get over to be able to make it, more compelling as well. I think that's, I think that's right.

Infrastructure plays a big part. What about you, Sjaak? Have you made the move yet? I'm I, my next car will be a plug in hybrid. So I will get that in a couple of weeks. Yeah. Oh, in a couple of weeks? Yeah. Yeah. New house and new car. New house, new car. It's all going on. Everything's changed. Yeah.

Big changes. Yeah. Marcel our producer, he's a innovator. He's a, oh, he's a massive convert, isn't he? He is. He talks a lot about the the experience changing a lot as well. He gets very excited about electric cars. I wonder if he drives that car into oncoming traffic when he's home as well.

Yeah, he will do that as well. he's got the, he's got the opposite extreme, hasn't he? He's also got a version, what is it, Type 2 Land Rover? Yeah, so type two [00:12:00] original Land Rover at one end of the spectrum, but you could drive that into oncoming traffic. It's a bit like a thank you yeah, nobody don't want to hit him All right, and then moving on to the third major theme which I think has got like really important relationship to how people interact with these strange objects called cars.

And it's around changing buying patterns. Obviously, historically, a car has been something that you've either owned or you've leased for, extended periods of time. And you get and develop relationships with them and I think what you can, what we can see again in common

with utility buying across varying different sectors at the moment, convenience and not owning necessarily the assets and being able to just walk up to cars on the street and Rent them for a couple of minutes.

There's a really loud presentation that's just kicked off next to us. And it's you were doing so well. You were on [00:13:00] and then I could just see your face. I had two, two streams of thought in my head. It's I'm definitely going to try and get my point out about changing customer buying habits.

But at the same time, what on earth are they on about behind me now? It's so excitable. They're talking about firewalls, Dave. You can see why they get so excited as a network Networks the most fun part of any technology. Yeah, but anyway Keith So coming back to that changing buying habits And so first of all, what are you seeing in terms of that shift?

And are you really seeing like a wholesale move towards sort of convenience? Relationship to car away from ownership relationship and as that impacted that the numbers in the sector that you can see And then we'll come on to is it really your car at that point? So demographics have been really interesting to watch because if you look at the emerging population, if you will, those that are entering driving age, they're not getting their licenses quickly.

It used to be when you were going to be at that age, you were so excited, you're like, I can't wait to actually drive a car. Now, a lot of people are immersing themselves through [00:14:00] technology. So they're not necessarily having to drive to their friend's house at that age. I think that's been one factor of it.

That's a good point. It's less emotional. if I can get around and where I need to Do I need to own it? And so I think you saw that coming on. Now, what, what changed? Sharing was a very large part of it and we saw a lot of growth in there. And then we had obviously COVID that, that occurred.

And so I think in some ways that reversed that a bit where then people said, I don't know if I want to share it, share as much, but I think we're seeing that come away again and we're seeing more of a. Resurgence, if you will, of people that are saying, I'm okay not owning it, I'm okay using an app to do it, as long as it's convenient to me in an urban population.

Now, does that impact the quantity of cars? No, you're still going to need the vehicles in order to support it, but the type of car you have is going to be different. And that comes back to the software personalization. Because when you enter that car, if it knows who you are, and it configures to who you are and what you want, that's going to be a lot more personal to you than owning it.

So you carry Your contextual experience with you, rather than the metal box that you're sitting in. Exactly. [00:15:00] Yeah, so it's where the ownership of the experience or the configuration of the experience sits. I think it's good. And it goes back to the when people shifted to streaming music services.

The loss of the physical ownership of the CD or the vinyl or the, I have the MP3. And we've got over that. So maybe it's the thing with the car we will eventually get over. Same type of experience shift, isn't it? But an interesting analogy because, have we gotten over it? Because, people are starting to buy vinyl again.

People are, we were just talking the other night in the bar, actually, of the resurgence of CD and DVD is also happening, and these are formats you would think have no intrinsic. Particularly the, I can see why people like vinyl, you get a big sleeve and it's like a very tactile

collectible thing, but CDs is that's a, that's just a digital transport media, if you've got a CD, what's, just have the MP3, it's it's the same. Arguably the MP3 would be better quality, it won't have the compression. But the the is it, like the whole notion of like In the digital era, we've seen mass adoption, and the [00:16:00] digital stuff will stay mass adoption, I have no doubt, but we have also seen the rise of dead format, where humans have gone, actually I like a tactile relationship to a thing, so therefore I'm gonna start buying vinyl again.

What do you think, Keith? Do you think that could hold for the world of cars? Because it's classic car ownership versus kind of modern car transactional ownership. What do you think? So I think, I remember having a CD in my age where you had the anti skip protection. So if you were out walking, you were healthy for a 60 second anti skip.

That's the technology side that just doesn't make it convenient. So there's some nostalgia. I'm going to celebrate listening to vinyl because it listens well. But when I'm actually traveling, when I'm actually doing my real life, I'm going to use my digital copy. And I think the same thing is true.

So I don't think you're going to see people go backwards in that. I think you're going to see some memorabilia in regards to it. Now, one thing a car has is it defines who you are. You're still an image bearer with what you drive. You're asking today, are you an electric car? Do you have a Land Rover of [00:17:00] this generation?

Some of that's in your identity. And if it's all digital and it's just shared, do you still have that? So I think there's a longer journey to ever say. We're going to get away from car ownership as a whole. I think you're going to see more people though, say, do I really want to make that expense at this stage in my life?

Or maybe I'll be okay sharing and having that. So you'll have a more balanced approach, right? And. Brilliant discussion today. It's actually a discussion I could keep having. It's pretty fascinating, these physical to digital shifts, particularly when it comes to the human emotional relationship to that thing.

And yeah, so we'll obviously keep tracking it. And thanks a lot for your time talking about that today. Thank you. But now let's move on to other things that have happened at the conference. So Sjoukje has been keeping an eye on announcements. Why don't you run us through a few that resonated with you?[00:18:00]

Yeah, one, a few that resonated with me were around storage this time. And the main theme here is again around cost efficiency and effectiveness, but also about performance, like for instance, the Redshift serverless. Service with AI driven scaling all around efficiency as well. And the new Amazon S3 high performance storage classes.

So all around performance, all around cost efficiency. And I think the automotive industry will benefit from these services as well, right? Very much. And so we're looking a lot at HPC driven workloads. So if you just think of the simulations we can do now versus building physical products. You can do it all virtually, and it's all about time to market.

So the quicker we can go, but if you can spend 10, 20, 000 cores, and you can do this calculation, you want to make sure your storage has no latency in it. So I love the announcement today, and in addition [00:19:00] to that, the Gen AI capabilities are similar. It is just a lot of horsepower that's being used.

And the quicker we can go, and what I love about it is, it's cheaper. I think that has been a big theme for me. architect it. There is a massive cost and efficiency advantage at the end of that. And with these platforms that we're talking about, the level of compute and storage

that they need, needs these types of architectural approaches to make it work properly.

Yeah, so it's achievable.

Any more? No, those were, We already covered a couple of those storage and databases on our first recording. And yeah, it's continuing. It's the main theme around databases and storage. So instead of no, instead of, but during the week so far, let's just, maybe just do a beginning of day two, little bit of what are we seeing emerging as key themes, what do you think?

So the AI story took a little bit of time to get going, but we saw Q yesterday, so there is a theme, and we saw a bit in the keynote that we'll talk about this afternoon, so that is there. [00:20:00] Interesting emergence of the AI conversation in the conference generally, like other conferences we've been to this year.

AI has been, like, advertised at the airport as you're arriving, all the way through to then the major keynote, the first thing, the first two letters that came out of people's mouths AI. The emergence of it has been different here, Keith. What's, in a really interesting way, Hastings and I, what's your take on the positioning of AI within the conversation this week.

Yeah, so I just think from AWS's perspective, it's just great that it's so public and you can have Thanksgiving conversations with your family about AI. And everybody's talking about it, but for AWS, it's been decades of AI and ML driven technology. To us, it's more about are we solving the customer problem, and what are we doing, in order to accomplish that.

The announcements today just continue to reinforce. We're on multiple generations of solutions. We have multiple options to support it. He was just another example of that. So I think instead of saying that's the only part of the conference, it's, Hey, that's continuing to mature just like all these other capabilities [00:21:00] that are enabling it.

I love our sandwich approach where we talk about the three layers. We start at the infrastructure layer and we move up to the application layer and it really is a holistic, secure enterprise grade ready solution for AI. And that's what AWS is about. And there's a lot, there's a theme there around practicality of computing on this scale.

Yeah, so we saw last year actually at last conference super massive architecture scale Werner Vogel announced that with that and I think that's now bedding in and we're seeing an x level of maturity associated with that with this one that was good. Yeah. I think the other theme that came out this week and it was really that set the opening tone, we talked about it on yesterday's shows, which is the modernization route to more economically viable cloud, as well as then getting all of the innovatory upside of being able to use the new toolkits.

I thought that was actually a really interesting way to open a conference. And I suppose the one thing I'm picking up in this conference is, it's an integrated story. Because AI, great, but you need all the other things around it. The foundations and the [00:22:00] capability and the practical nature of it. And the cloud native style architectures and the efficiency underpinning it.

Pinning it when we talk about going enterprise wide scale, at the core. So we seeing that kind of the practicality, uh, an interesting positioning of modernization and maybe some re business casing around why you might do modernizing and go on. But what is an expensive journey?

So how do you better Equip organizations to go on that journey. Great theme. AI, but positioned as a very integrated story. And then, an ongoing storage evolution and data position. Have we missed any big themes so far for you, Keith, as we've got, 30 percent into

the conference?

I love how Adam started the keynote and I think we're hitting on it today too. This is available to everyone and this is really what the cloud's about. And I love how they started that. You imagine trying to build this infrastructure yourself for this capability. Anybody from a college campus to the largest organization has the ability to use what everybody else is using.

And now with these very large supercomputers. So again, I just think [00:23:00] it's a testament to where the cloud is and where it's going. And it's just beginning. There's so much more that's coming. And we're excited about that. It's a very good point. The democratization has continued and doubled down on yeah, so that's available to all.

The foundation is ready and now you can build all those innovative solutions on top of that. Yeah, I really love that. Yeah. It's a great note to end the conversation on today. Keith, thanks again for joining us. It's been great to see you and I'm sure you've had a very busy diary, so we really appreciate your time.

Really appreciate being a part of this. So yeah, great conversation. Again, congratulations on the partner of the year award too. So I'm nicely done. So I really appreciate the partnership. Thank you. But we end every episode of this podcast by asking our guests what they're doing, what they're excited about doing next.

And of course we're in Vegas. So Keith, what are you excited about doing in Vegas next? We know what's coming, so Bill Voss presentation is coming tomorrow. He's gonna have a lot of cool announcements in his, so I'm most excited for that. And then in addition, my AWS sneakers, and continuing to rack the [00:24:00] conferences.

Yeah, we get a lot of steps in that, so those two things excite me the most. Just looking at our producer, where's ours? Where are our sneakers? Mate, we haven't even got stickers, never mind sneakers. No. The standards are slipping Marcel. I think he will order them after this recording. Sneakers and a monkey.

That would make us happy. Too soon to talk about the monkey, get him quite good over it. Too raw. So a huge thanks to our guest this week, Keith, thank you so much for being on the show. Thank you.

But this afternoon, I am delighted to say we have Melissa Dougherty with us, who is the Director of Partner sales for global financial services at AWS. And we're going to have a view into the financial services market and the impact of digital in there. However, before we do that. Just a bit of a catch up on the show itself.

Rob, how you doing? How's it been? It's alright, it's good. Halfway, I think we're over halfway through now. [00:25:00] I think we are by the time. Surviving, shall we say. How about you, Sjoukje? Are you good? I'm very good, yeah. What have you been up to so far? I've checked out the experts square over there.

Lots of cool stuff going on, new technologies. I would have to say that the Q booth is heavily visited. Is it? Is it? Yeah. I've saw some demos. Yeah, it looks very good. Yeah. We'll make talk about Cuba in a little while. That's good stuff. But I've got a very important update on on Rob's search for a mouse.

And I thought what was particularly excellent was Rob's wife's got involved in this. Melissa, just to bring you up to speed of something that's quite unbelievable. Rob, who is, he sets himself out as being a very prepared traveler. Let's just say, to cut a long story short, it's not really held together on this trip.

And we've been tracking it as we've been going along the week, and [00:26:00] One of the things that Rob's tried to do, was he was like, he'd left his mouse at home and so he comes up and he goes, Ah, I've left my mouse at home, I'm gonna go and try and find one as a bit of swag. And I was like, Can you get Mice's swag?

I'm not sure I've ever seen people give away mice before. Anyway, he goes off incredibly assertive of himself. That hasn't gone particularly well. But, there's a bit of a follow up to this, which is, Rob's wife hi Christine, if you listen to this one listened to one of the shows yesterday and texted back, and texted him and said, I did mention when we left the house that we had time to go get To go back and get a mouse.

And he, in his absolute confidence said, No, we don't need to do that. I'll pick up one and swag. Hubris, Dave. Hubris, I think we call that. Yeah, so I was reminded very early on this morning that I'm an idiot. Do you have one yet? No. I have failed miserably to find any, if anybody's [00:27:00] listening and they want to send me a free mouse, feel free, I'm up for that.

Might be a bit late by then. Yeah did you find any swag, though? Yeah no, it's lots of wheel spinny things, right? Spin the wheel, you get your swag, chocolate bars, books, all that sort of stuff. Oh, you got a Lego set? I got, I won a Lego set yesterday, actually. I had to answer four trivia questions.

And I got some Lego, which I'm quite excited about. It's much better, I only have a pair of socks. I know, yeah. Have you looked for any swag, Melissa? I have not had time to go and search for the swag. No time. Me neither. If someone said that there was a humidifier somewhere out there as swag, I would be, I would literally be out there is the next best thing though.

People are doing branded lip balms. Lip balm? Yeah. Which I thought was probably the best piece of Vegas swag I think I've seen. Yes, that's good stuff. Anyway, talking of Vegas, shall we crack on? Yes, please do. If we could move along now, that would be lovely. Thanks for coming though, Rob. This material is unending.

So Melissa, just tell us about the show for you so far. What's resonated [00:28:00] with you? What have you been engaging in? This is my eighth re:Invent . I have been part of this for quite some time. And this year Is incredible. I think we've got what? Somewhere close to 70, 000 people here this week in Vegas.

It is noticeably busy. It is absolutely insane. So is it the biggest? It must be the biggest. Oh, it's by far. Yes, it is. It is the biggest. I think for me, just getting to meet with all the partners in one spot listening to how they're innovating on AWS and how they're solving customer problems and just cycling through those conversations, I'm getting excited about what next year is going to bring, so closing out 2023, looking forward to 2024 and what our partners are going to do with, with and for our customers.

Looking forward. And of course, meeting with my co workers that I don't get to see because we are all over the globe. Collaborating with them as well has been super exciting. Yeah, I'm definitely part of what makes this conference in particular buzzes. People getting back together, having seen each other for ages and catching up.

In 3D, always better, as I [00:29:00] always say. Yes. The video conference, it's okay, but Yeah, being in person, there's nothing like it. Yes, there is nothing like it. And, yeah, and I like bumping into colleagues from old organ from old organizations, exactly like one of your colleagues I used to work with.

Yes. I would give him a shout out, but he's actually not listening to us at the moment, he's taking his headphones off. To be fair, Dave, the way you know everybody, it feels like you know about 10 percent of the conference. You just say, hello, how are you, remember when we, this dot, you have a remarkable Network here.

It's just every turn a corner. Hello, Dave. It is. It is quite a joyous thing. He's like a thoroughly enjoyable, you know It's a small it's a small industry Are you working a few sort of organizations and then you get you know With it with and this in a positive way with the level of attrition that tends to happen in tech Sure, your network spreads like really, really quickly.

I love it. I love it. Anyhow, should we talk about your day job and what that's like. So tell us a little bit about your day job to start with. Nine years at Amazon [00:30:00] and the last two and a half years, I have been leading a team that supports our partners within global financial services.

So what that means is we have 63 global financial services customers. And my team specifically supports all the partner motions for those customers. So think across our technology partners, our systems integrators, global systems integrators. My team is responsible for partnering with those organizations and bringing solutions to our customers.

Amazing. So you must be right at the heart of what I think Amazon refer to as the power of three? Yes. You want to just tell us a little bit about that and maybe like why that's important. So this is this is the power of three for us has really been an evolution. So thinking back nine years ago, hyper focused on selling our native services, that's what it was all about consuming on our platform within the last couple of years.

That's really transitioned to being more, Think about it from a Lego perspective, right? You've got our native services and then you have our ISV or technology partner solutions that build upon that. [00:31:00] Customers don't come to us and say, Hey, we want to buy EC2 or S3. They're looking to us to really solve their problems and our services are not going to solve all of their problems.

So really identifying based on what the customer wants to do, which ISV or technology partner we are going to partner with. Bring in the right the right GSI or SI to help and really provide an end to end solution for our customer. And it varies, right? So within Global Financial Services, we have insurance customers, we have banking customers, payment customers, all with very different problems and very different applications that they're trying to move or or innovate upon.

And how do you find that the dynamic works? So how do you, what does good look like in terms of setting up like? Those three organizations plus customer. In a way that can collaborate. Yeah at Amazon, we always work back from the customer, right? So really, all, starting from either us or our partner being, it could be GSISI or ISV, really starting and working backwards from the customer wants to achieve.

And then the three of [00:32:00] us sitting at the table, working with the customer on mapping out, what does that solution actually look like? Customers are very overwhelmed, especially when you look at anything that's maybe in the data space. So many partners that you can use and the data space, the customers are like, which one do I use?

Where do I go? How do I do this? So when you have various parties or various partners sitting at the table, it really helps the customers conceptualize really what the solution is going to look like, when it's done. Yeah, I think there's a nice part about. Just like the more brains and perspectives you get in the room, the better the output, right?

It is. It's a better solution. It is. And today and consequently all week, we've been, almost every single meeting I've been in, this topic has come up. With every single partner I've met with and customer. I think if you look at the sector and we've heard over the last 12 months the sovereign story come, become a lot stronger with AWS and financial services as a heavily regulated industry.

I'd be interested to get your viewpoint on how you're rising to meet the challenge of the regulator and bringing that [00:33:00] security and risk profile to the solutions of this power of three. Yeah, so we've got a dedicated team for global financial services that this is all they do for the last six years.

This team is being built out to really address this in two ways. So first we have dedicated security and compliance folks that assist customers with their governance, risk and regulatory and compliance needs. We have a global audit and due diligence team that also helps assist. Yeah. Over the course of this last year, that team has addressed over 40, 000 questions from our FSI customers globally and have helped over 60 customers get ready for their audits.

In addition to that the FSI security and compliance team works with our security assurance team, public policy, legal and service teams to get the voice of the customer to the regulators. Obtaining global certifications and addressing upcoming rules and regulations that come into play. So really, we're trying to get in front of it and putting the customer voice in front of the regulators before they make decisions.

[00:34:00] Yeah, and it's that, and we're seeing the regulators become more cloudy. Yes. Yeah, and clouds supplies are rising to meet the regulator. And I think there's this happy bit in the middle where everybody's arriving. And we see it in various sectors like defense, public sector, financial services is becoming the norm now, which I think is a very powerful change that's occurred for me in the last couple of years, particularly.

It is, and it's an education, right? So this is new for the regulators. So they're adjusting and we're trying to help them adjust along the way. Yeah, and I think it's working. It's starting to, there's a seismic shift starting to occur, I think. Yeah. Yeah, indeed. Yeah, I agree. I agree. And I wanted to talk, actually, I wanted to wind the clock back a little bit on on AWS in financial services, because some of the most significant early moves to the cloud happened in the world of financial services with AWS, I think.

And, going back to the days of Capital One's move. And at the time personally, I was at BP. And BP were moving to the cloud at a very similar time to Capital One. So I remember [00:35:00] those days. So perhaps tell us the story. So from those early days of Capital One. How has things progressed?

I know there's been some mega work done at an organization that we're going to talk about in a second, so maybe give us the background. Yeah Capital One was the exciting, was the exciting start. Nobody could believe, holy moly banks are moving to the cloud. This is so scary.

Since then, what we've seen is A lot of the banks, insurance organizations, have all moved their, are moving their infrastructure, right? They've moved it, it's the easier stuff, now they're looking at apps, they're trying to figure out, how do we modernize our, our applications?

How do we take more solutions to the line of business? Either, better customer experience, etc. We've seen recently companies like NASDAQ and this NASDAQ has been mentioned

several times over the course of this week successfully moved their core trading system of NASDAQ MRX to AWS.

It's one of six U. S. exchange options exchanges that are going, we've already done five and I think outside of U. S. we've got about 20 more to [00:36:00] move. That must have been extraordinary in terms of the latency challenges. You would have thought, yeah, definitely. We co designed the ultra low latency edge computing system for capital markets all across NASDAQ and AWS are changing what's possible for capital markets.

This move is it's a pioneer, right? With the migration of MRX to AWS, enabling NASDAQ clients to easily and seamlessly transact billions of dollars each and every day. The age of a cloud, I'm sorry, I was gonna say the age of cloud is definitely upon us when you hear such critical systems.

Yes, trust in cloud. Yeah, so we see critical national infrastructure move. We see massive financial systems move. It's here It's like we are in that era now it is today I think what's also interesting about that case study is the maturation of the architecture as well as the technology So you're getting like multi layered architectures Everyone leaps to this conclusion that cloud is just this big centralized thing, but it isn't really there at least distributed Yeah, heavily distributed see The cloud, the [00:37:00] public cloud itself is distributed, then you've got fog compute with things like outposts, local regions, and then of course you've got the power in the edge now as well, like, all sound like they're coming together in a Nasdaq solution.

Yes. We've also got companies like Morningstar risk model solution for multi asset portfolios was taking 10 hours to run a single model with a single currency in for a single day. And the scaling was just not feasible on, on prem architecture. So with AWS, Morningstar's platform is now 160 times faster and reduced calculation time by about 98%, which enabled the company to expand from 50, 000 assets to over 5 million.

Now that's a business case you like to hear, isn't it? That's not a, that's not a 20 percent improvement. Yeah. That's a very significant upside. Quantum leap. Yeah, I would say. I'm surprised you haven't banged on about converging technology yet. Oh no, I'm not going to say it on this one Dave. That's it, I'll avoid it.[00:38:00]

You can't do that to me. No, it's one of Rob's favourite subjects. But it is converged. I also thought it was interesting, back at the beginning of the story when you talked about Capital One themselves have a booth here. Yes, and we are seeing, yes, we are seeing that and there are other customers that I can't, that I can't mention.

That are also engaging in early stage discussions around selling their IP. It's quite something. So I'm going to go and have a look at the Capital One booth. I haven't made it over there yet, but it's really fascinating that they've got a booth at a tech conference. If you've got an approach and a technology stack that works as proven on scale, and you're a bank that hasn't, it's a, how do I leapfrog?

And it's a quick way to leapfrog, isn't it? So the monetization of the last eight years of Cloud journey. That's got huge amounts of value in it, right? Amazing. It's a good business model. Become the supplier of the bank to the banks. Incredible. Of course, one of the biggest challenges of a financial sector itself is [00:39:00] legacy and legacy modernization.

And Schalke, I think there has been announcements around legacy modernization.

Yeah, there are. Yeah. On the mainframes, some announcements were made yesterday that there is there are some new announcements on app testing features, file transfers. Good

question for you. Do you say migrate or start over? Oh gosh. For mainframe applications. Yeah, so I think it's not migrate all at once.

It's migrate pieces and parts at a time. So that's what I'm finding our partners are doing. They're engaging with customers not to do full mainframe migrations, but by Taking the mainframe apart and moving pieces that are [00:40:00] not going to kill their business. Yeah, no, I mean that, that makes total sense to me.

I also think I really wonder whether AI is going to be the thing that really substantially deals with mainframe modernization. That could be, that could certainly be it feels like in terms of code migration. It's gonna, it's gonna do it, isn't it? Yeah, to a degree though, there's a sizeable amount of risk associated with that as well.

Oh, sure. So you have to be very confident in the . It's never gonna reduce your business risk. No. But it's you can see it's starting to happen. That they have to tackle that core, that big core. Yes. Yeah. We are now in, you talk about the third era, and they're still in the first era of compute.

Yeah. Yeah. And they've not even leapfrog to the second. So Yeah, you've gotta deal with it at some point, haven't you, to jump. It's a jump. But while we're on it, I maybe bring our conversation to a little bit of a conclusion. AI in financial services. What are you seeing? So our use cases really span across two dimensions.

One is, improving the [00:41:00] internal and external customer experience. And number two is increasing knowledge and worker efficiency. So when we're talking to our customers. They're dabbling in this more, I think, internally facing to see, how this is going to work. We do have a public case study out right now in that West is using machine learning and data analytics to engage and personalized messaging for its large customer base of about 20 million.

So essentially they've successfully deployed 100 machine learning models using SageMaker. with the goal of having thousands in the next two years. So essentially, they, the impact of the personalized messaging approach has been pretty significant, including saving customers in poor neighborhoods half a million pounds in ATM fees within six months, reducing fraud and enhancing overall customer well being.

So essentially, what they were seeing was ATM fees were, so in poor neighborhoods where there were ATMs. Folks were using an ATM machine and getting charged, [00:42:00] pretty exorbitant fees. So they came up with personalized messaging to say to the customer, Hey, if you go over here and use this ATM, you will not be charged.

That's a good social service. I like that. That's good. Although I do feel that financial services, because they're so focused on competitive advantage, because it is a very fierce market and sector. That they're going to be, again, like they were the pioneers of cloud. And they went in with big systems.

They're probably going to be the pioneers in AI and ML as well. Because they'll get the edge. And when they see the edge, they'll exploit it. Because that's the nature of the sector, isn't it? Yes, it sure is. Yeah, totally agree. Brilliant. Look well on that note. Thank you very much, Melissa, for that insight into what's going on.

I particularly like the power of three model. I think there's something really there's some really useful about it. I think we'll see more of that. A lot more of that in 2024. Looking forward to it. Yes. So before we wrap up shell other announcements since we last talked. Yeah, a few [00:43:00] one on secure clouds or several unsecured cloud more than 65 new

controls on data sovereignty.

Very good. High performance computing updates, memory intensive workloads updates, serverless performance and scaling updates. And also for databases and coding features. That's it. Like a lot of underlying performance. Performance. Functional upgrades. Control, security, meeting the, we've seen a lot of sovereignty challenges coming to.

Or answers to sovereignty challenges, and they're just being announced again and again. Oh, it's true. And cost reduction, ongoing cost reduction. Yep. Yeah, that continues that theme of sort of the practical enhancements that are dealing with some of the practical stuff, as well as the sort of more top of stack, sexy stuff.

Yeah, and we saw that last year here at re:Invent as well, didn't we, with the sort of, you can do it at scale and you can do it efficiently at scale. Yeah. As you remember, we spoke about supermassive architectures last year when Werner got on stage. I'm really interested to see what [00:44:00] he's going to say tomorrow because I suspect it will be big announcements again from a technology perspective.

Looking forward to that. Yeah. Yes, me too. Melissa, thanks again for spending some time with us this afternoon in what I'm sure is an incredibly busy diary. Oh, for sure. Never ending. No, never ending. But before we let you go, we end every episode of the show by asking our guests what they're excited about doing next.

And since we're in Vegas, Melissa, what are you excited about doing next in Vegas? Oh, gosh, I'm excited, honestly, about going home. Yeah, amen. I'm with you there. Almost there. And that rises steadily throughout the week, doesn't it? Yeah. The will to want to go. I love it. I love it here. I love it with my customers, but man, it is a week.

It is a week. It is a week. We're in good shoes, flat shoes. Good luck getting through to the end of it. We're halfway there. We're almost exactly at the halfway mark, I think, so you know, the end is in sight. Yes. So a huge thanks to our guest this week, Melissa. Thank you so much for being on the show.

[00:45:00] Thanks also to our sound and editing wizards, Ben and Louie. Our Jet Lag producer Marcel and of course to all of our listeners. We're on LinkedIn and X, Dave Chapman, Rob Kernahan, and Sjoukje Zaal. Feel free to follow or connect with us and please get in touch if you have any comments or ideas for the show. And of course, if you haven't already done that, rate and subscribe to our podcast.

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