



CLOUD REALITIES

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Cloud definitions and
2023 trends overview

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[00:00:00] It might actually even be too loud now go again. This is Sjoukje speaking loudly. No, you're good. That's perfect.

Welcome to Cloud Realities. This is a conversation show about what cloud driven transformation really means for businesses and humans. I'm Dave Chapman. And I'm Sjoukje Zaal. And this week we're going to look at the current state of cloud. So what are the big trends at the moment in the industry? But we'll also set out some definitions given it's our first show.

And I think when you listen to cloud conversations, there's generally quite a bit of inconsistency in how some of these terms are used. So we'll set out a start at the 10 at least, in terms of how we're using these terms. Well, [00:01:00] before we get to that though, Schalk, how are you doing? Are you all ready? I'm totally ready for it.

Really looking forward to it. Great. Yeah, me too. What have you been up to this week? Anything interesting? I know you did a huge thing this week, right? Yeah, I did a huge event. An 18 hour, 18 hour live stream. An 18 hour live stream. Yeah. I mean, that's crazy. So tell us a bit about it. What, what happened? Uh, we did, uh, I, I, I lead the Global AI Community, which is a very huge community with more than 30,000 members.

Wow. And every year we have two major events. And this event was, um, called the Global AI Developer Days. So we started Wednesday evening with a keynote evening, fully packed with sessions with CVPs from Microsoft and NVIDIA, sharing their visions around AI, the future of AI. And then yesterday, Thursday morning, we started at...

I think [00:02:00] around 6 a. m. with the live stream, we had 36 sessions of community members from all the globe, from around the globe. And uh, yeah, it was, it was great. Really awesome. Amazing. I mean, the fact it was an 18 hour live stream slightly blows my mind. So how, how much of it were you on for? I think I had some short breaks for one or two hours in between, but I was on for the eight, the whole 80 hour, 18 hours.

Wow. And, and what was the outcome? Where did you get to? The biggest result was that we had a great day and that everyone enjoyed all the sessions and enjoyed the commitment from the community. And, and we had lots of viewers, which is kind of a big thing nowadays. It is, it is, people are overwhelmed with things like this and, and, you know, potentially podcasts, dare I say that you really got to try and bring something to the conversation and, and, and pull viewers in [00:03:00] with some fresh content, I think.

Yeah. True. Yeah. Totally agree. It's tricky. And talking of content, let's, let's, let's crack into what we're going to talk about this week. So this is an introductory show. It's just going to be Shalkir and I, and we're going to talk through some core elements to do with the cloud and where the cloud is up to today.

And then we're going to come to an innovation section that Sjoukje will talk us through a little later on. And, you know, don't want to give much away, but we might be returning to the world of AI for that. So looking forward to that towards the end of the show. So as it's our first show, let's set out some of the basic definitions.

So first of all, Very quickly, cloud computing, we see it as the on demand delivery of IT resources over the internet with pay as you go pricing. That's a big shift away from what traditional IT looked like, where it was very contract bound or heavily insourced with local data centers. What this does is it shifts [00:04:00] all of your compute resources into an internationally owned organization, which, you know, sometimes can create issues with things like data regulation, much of which we'll explore in coming weeks and the coming



weeks and months of the show, but effectively it changes the dynamics.

So going from buying computing as CAPEX heavy technical equipment. To buying your processing much more like buying a utility service like electricity or water, but cloud computing is much more than that. It has a series of layers and additional functional components that allow you to transform. Um, how you're doing things as an organization and what we'll do again in coming episodes is really dig into the reality of what that means and some of the challenges of that and it is not as simple as just putting in another data center.

For example, the [00:05:00] potential of cloud computing ways of working can be very profound for an organization. And the technology itself is also not as straightforward as just replacing servers with a commodity service. It goes all the way up to the software layer and therefore what an organization can actually do with technology.

There are three cloud service providers that are really dominating the market. Those are AWS, Microsoft Azure, and Google Cloud Platform. To give you a sense of that in terms of market share right now based on some current research done by Um, ISG and Gartner, roughly, roughly AWS has 32 percent of the market.

Microsoft Azure has 26 percent of the market and then Google Cloud Platform has 16 percent of the market. And then the remainder is built up with smaller cloud providers, the likes of IBM Cloud or Oracle Cloud, or things like Alibaba Cloud and various other more regional [00:06:00] iterations of cloud. Each of the different cloud providers offers different levels of service.

So, Microsoft's got a very, very deep heritage in working with enterprises. It really understands how vertical industries work. And right out of the gate has provided a bunch of tooling that work right up to the sort of business logic level of, of how a business might function on the cloud. Whereas Google, for example, with a background in search and big data.

Has come out of the traps with incredibly powerful data and analytics tooling AWS, who, as I said earlier, are ahead in the market, have just created huge volume, an incredibly fast innovation rate, which means that they come out with new tooling and new ways of working on a very, very regular basis. So that's the CSPs very briefly, there are.

three primary levels of cloud. There's [00:07:00] infrastructure as a service, which is effectively buying your servers and networking and underlying processing. There's platform as a service, which is like buying development environments. So you might be able to get a platform as a service that's specific to your industry that you can then leverage immediately some industry tooling or industry data and analytics pre configured materials.

And then finally there's software as a service, which is literally consuming, um, software directly off the cloud, which would be things like Salesforce, for example. And then finally, in terms of a brief kind of introduction to the topic, we think that around about 30 percent of the world's workloads are currently on the cloud.

That means that we are 10 years into the cloud and actually really we've barely got started. But what is clear at this point is that it is becoming. [00:08:00] Dominance. So the conversation used to be, should I go to the cloud? Now the conversation is much more like. I am going to go to the cloud. I just don't know how yet.

I don't know what scale my leverage of the cloud is going to be. I don't know what form that's going to take and what my business case might look like and various different things like that. So adoption at this point, even though it feels like we hear cloud talked about. All the



time from every direction and it pops up on both mainstream news as well as, as well as sort of tech coverage, and it feels like it's been with us forever.

We're still in the relatively early days, I think, of actually adopting the cloud. That really sounds great, Dave. Very good description of the cloud in the current state, but why does that actually matter? It matters on a number of different levels for organizations. The first and probably most obvious one is to do with the fact that.

The world is digitizing sort of whether we like it or not, [00:09:00] it's well known in various different industries that the digital organizations are disrupting that sort of business level, but also just the basic technical level. If you're running your own data centers at the moment, and yes, you can do elements of private cloud, but actually keeping up with the innovation of the cloud is really going to be very difficult for you.

So the first big point for me and why it actually matters is the fact that it. It drives new approaches. So all of those things come together to actually mean that you're going to work differently when you're on the cloud. So it's not just that your technology is in a different place, but actually all of a sudden you can now move faster now.

A lot of organizations get into the cloud thinking they're going to get velocity and then they get disappointed that they don't get velocity. And the reason for that is because the transformation actually goes much deeper than just the technology and the tool set available and say your methodology for project management.

It's [00:10:00] much more about mindset, governance, how your organization actually functions. I align this to a phrase that I like very much, but is often misused, which is the phrase of cloud native. Now, sometimes people define cloud native as being quite a technical thing, right, Sjoukje? The talk, you know, how would you define a technical definition of cloud native, for example?

Re architecting or rebuilding or redesigning applications, workloads that can run on the cloud in a distributed way. That's, for me, the technical description of cloud native. Yeah, which is absolutely spot on like, like bang on. And that means you've had to sort of rebuild your application pretty fundamentally, really.

And generally, you're probably in doing that you're using certain cloud providers tools that come with it. And therefore, if the cloud provider updates that tool, your application is all. Is, is updated for you kind of automagically and also does a thing called elastic [00:11:00] scaling where you know, um, if, if you've got a peak of processing at a certain point of the month, because that's the way your business works previously, you would have had to buy equipment to make sure you can hit that peak while in the world of the cloud, it will, a cloud native application will, will scale out for you, it will pop up additional processing.

And then when that's finished, it will, it will retrieve that back in again. So it can be very, very cost effective. But for you, it's different, right? Cloud Native, how would you describe it? Yeah, I, I see it as a, as a wider objective than that. So it, it has absolutely from a technical level, exactly what you said.

But for me, it comes with. Different ways of working and a culture that that may be different. So a cloud native organization would maybe think about, say, application development and therefore new business service development in a different way. They might think about it as being able to respond to the market.

And that means that if they're responding to what the [00:12:00] market is doing and they want to make fast updates to that application. Well, they've got to govern that differently,



and they've got to delegate authority into teams differently. And it's through that delegation you get things like DevOps working properly as a process.

Without that delegation, DevOps doesn't really work properly because you can't make decisions within that team. So there's an element of... Right at the top of organizations making conscious decisions about how they delegate authority, which can then impact processes further on in the organization in a way that can say, for example, increase velocity.

Also within that type of organization, leaders need to think differently and they need to. Reset what good looks like e. g. the whole learnings and failures thing is a failure bad or is a learning on a way to something better as well as the style of leadership in a cloud native organization you're really looking at the experts and the practitioners to [00:13:00] make the right decisions and the best decisions.

So therefore leaders might be uncomfortable with that because they might feel like they need to have answers, but actually what they're really there to do is to support practitioner teams to get to the right places. And that does not just in technology, I hasten to add that can go out into product teams and, uh, and business development teams.

Does that make sense? Yeah, that sounds really good. And I think most businesses or organizations will have a long road ahead to make that change. Yeah. It's often underestimated. And, and actually that's a great point because when I, when I refer to cloud transformation, I usually call it cloud driven transformation, which means it's, yes, we're starting with the cloud.

That's the kernel of what we're doing here, but actually it's, it's much more resonant. And kind of ripple effect changes can happen right across an organization as a result of making this change. Now you can, of course, resist that as an organization and keep it boxed in, which may or may not work. And you may or may not get some of the benefits out of, but [00:14:00] you won't be able to realize some of the wider digital benefits.

I think one of the best examples for me, and it's, it's well trodden ground, this example, but I don't think there's a better one yet is Netflix. So Netflix start life as. You know, a physical media distribution company, emailing DVDs and Blu rays to customers. Then they very quickly get on the streaming bandwagon.

So right at the very beginning of streaming, Netflix put up a big platform on AWS and get into streaming very early. So then have the courage to pivot out of their old business. And then the next step they take as an organization is then actually creating content. So they effectively had, there's two market disruptions in that journey.

One is the disruption that streaming brought about to, you know, the distribution of media, you know, the blockbusters of the world, and even cinema exhibition of films, and then Hollywood itself. [00:15:00] In terms of changing paradigms about how films are released, um, how TV series are released. So two very major disruptions, and that's an organization that didn't make that jump all in one giant leap.

You know, they took a series of iterative, brave decisions during that period. And those were really brave decisions. It takes a lot of courage to be that bold and also a good vision and a good strategy to to make that a success. Exactly so.

Okay Dave, so let's move on to the next section. So what are the current adoption trends for 2022? As we said earlier, the state of the world's adoption at the moment is around 30 percent. So that means 30 percent of the world's workloads of all. Of all the workloads in the world that are currently in private data centers has been moved to the cloud in some way,



shape or form.[00:16:00]

And there are a number of different ways you can do that. Most of it has been fairly simply moved over. Unless you're a new organization or you've invested very heavily in the sort of cloud native modernization that Shark was talking about earlier. And though that's the case and that's relatively early days, there are a bunch of, I think, important trends that are visible.

At the moment in how the cloud is being talked about. So I'm just going to quickly whiz through those. First of all, sustainability, of course, is a very substantial subject in the world of compute as it should be. Um, we talk just at the point where COP 27 is about to happen, uh, and a big discussion of the world's leaders in terms of climate commitments over the course of the next 12 months and following up from COP 26.

So the cloud providers quite rightly are leaning into this with. Net zero commitments, I think now on the table from each of the cloud providers, and I would expect that the big industry [00:17:00] shows that are coming up over the course of the next six months, we'll hear a lot more from cloud providers about it.

The other thing in this trend that's interesting is cloud providers giving some power back to organizations to make decisions about where the power is coming from that's powering their processing. So being able to elect as an organization to use carbon neutral or net zero. Processing power, I think, is something that has got to come along at some point in the not too distant future.

And you can already see things like FinOps organizations getting their heads around how sustainability can be built into the day to day working of your cloud environments. The second trend I would point out is Modernization really kicking off in earnest now, so a lot of early cloud adoption was often driven by I.

T. Organizations. Quite rightly, I was one of those people, and you [00:18:00] would do it on a cost saving business case. Well, actually, when you look at what's going on in vertical sectors and vertical industries now, there are so many. Very interesting things that can be done with things like IOT and various different platforms as a service that can really sort of profoundly change how businesses function.

So I would expect terms like industry cloud to become. Much more part of our non clementia over the course of the, say the next 30 percent of adoption where I think it will be much more modernization centric. And that's something we're really interested here on the podcast about, which is like, how do you really modernize and what does that really mean?

I've talked about platforms. You can find platforms everywhere these days, not just the. You know, um, infrastructure, platform and software as a service. Gartner talk about something called Cloud Infrastructure and Platform Services or CIPS, which, which is bringing together core elements of [00:19:00] landing zone build and things that are available in.

Operational platforms to pull together highly automated offerings within which kind of infrastructure resources are complemented by platform resources. So that's very interesting. Um, database as a service is highly prevalent, business process as a service is prevalent, communications platforms as a service is prevalent.

So platforms are absolutely everywhere and how you think about your cloud environments now will be platform centric, almost like whether you like it or not. But that bridges me into the fourth trend, which is somewhat counterintuitive to that, which is, I think the death of lift and shift has been wildly over exaggerated.

So lift and shift was a version of a migration, for those who are not aware, where you very



simply just move your application from running in a data center to running in the cloud. That can often mean you transfer tech debt, um, and it can mean that you can't use that application in a [00:20:00] cloud native way when you get on the other side, um, but it, um, gets you there quick.

And that can often be a good reason to do it. And we are still seeing lots of organizations wanting to take that path through. Um, so in, in, in our world where, you know, our reality here is that cloud native is effectively where we kind of advocate from. Lift and shift still has a place, but it's how you do it.

That's the important thing, how you do it, how automated you make it, how cost effective you make it. So you're not hampering yourself from modernizing those applications a bit further on down the line. Connected to that is trend five, which is cost and cost is everything. On our next episode, we're going to delve a little bit into cost with our first guest.

Um, and cost is at the. At the baseline of every one of the business cases going to cloud, whether it's [00:21:00] got business value attached or not, cost has to be factored into this. You've got to get your operations right on the other side, and you need to get your route to benefit realization very clear. These themes are things that we will absolutely return to because benefit realization is something I don't think we as an industry have really got our heads around yet.

The next one, um, relates to the humans that are at the center of all of this. So talent and the talent crisis we currently have in the industry. Um, as, as many more organizations start to embrace this stuff at scale, there is only so many people, experienced people to go around opening up ways to train talent, ways to reskill talent, ways to radically increase diversity and inclusion in the talent, in the talent pool for cloud is.

critically important and it's been on the top of the agenda I [00:22:00] think for the last year or so and I think will continue and should continue for a number of years yet. Can you elaborate a bit more on the diversity part, why it is important? Yeah, my view is is if you take a microcosm of say a DevOps squad.

Let's just, let's say it's got 10 individuals in it and they're all doing different roles. Some are doing more operational, some are doing dev, some are doing architecture, some are doing security. If that team has got 10 people in it, all with the same background, all with the same points of view, all at the same age demographic, you are going to get a certain set of solutions.

And it's going to be a limited set of solutions because it's all going to be inspired by the same stuff. However, if, if within that group, you've got 10 people, different ages, different genders, different backgrounds, um, you know, different histories and different ages, you're going to get 10 very different perspectives [00:23:00] on the world that bring to a conversation something that's just so much more exciting and energetic and invigorating, and you're going to get to better answers.

I totally agree. And that's also in line with the group of people that are using your workloads or your applications or your solutions. Absolutely that. So it's, it's a better reflection of what your consumer and your customer is doing. So I think what people misunderstand sometimes about it is that they feel like they have to do it because it's being measured in some sort of way and nothing else changes.

So no, hey, no, let's be more diverse, but actually we're not going to really change anything to do that. But actually, no, like real inclusion in my mind is about, no, we, we might change



the ways of working in the team. We might completely change how the dialogue works in the team because that's how we're getting sort of how, how people are bringing themselves to the conversation.

Right. You've just got to create different spaces sometimes and safe spaces for those things to really flourish. The last point on trends [00:24:00] point and kind of where the industry is up to at the moment is around the sort of changing natures of the market. So the changing natures of what it is as a function procurement looks like in the cloud and the cloud service providers themselves in terms of changing how the market is working.

So for a long time, it has been a cost center and has been very focused because its businesses have asked it to on being very, very efficient. And driving down cost and that's brought around things like labor arbitrage and being able to buy big chunks of service from traditional GSIs, global service integrators, and that often could be, say, a five year deal kind of with a thousand page contract with very clear Ts and Cs.

Well, in the world of the cloud, it sort of doesn't work like that. The Ts and Cs you get from AWS, for example, is about two pages of A4. It's how you architect that situation. That is going to create your stability and efficiency and all of [00:25:00] those sorts of things. Labor arbitrage though still plays a very valid part in IT today generally.

Automation arbitrage is now on the rise, so actually using software to drive some of these things, you know, itself. The kind of automated platforms that I talked about a little bit earlier. We're seeing Cloud service providers bring very significant automations to the market in the world of operations that we need to engage with and then I, my final point, I think, would be I.

T. departments themselves are now doing to stretch outside of their traditional boundaries. So go from being. An organization that was very technical centric and an efficiency based and actually having to look at actually is the technology as effective as it needs to be and what business conversations that I need to be having around that.

So I think shall for me broadly, those things hopefully summarize about where we're up to in industry right now. Yeah, I think it totally aligns with, uh, with the [00:26:00] current state. And I also think that these are great trends that we can work out in our next episodes, right? Exactly that. I think that just the beginning of, of a, of a very rich conversation, I hope that, that really gets to the heart of what all of this stuff is about and where the reality of it lies.

Yeah. And the, the final point I think I would make is about the human at the middle of it. So often in these big sort of. Technical and transformational conversations that can tend to be very, very sort of business like or tech driven or something like that. And I think what we're going to be interested in as well as all of those issues is like, what was it like as a human to go through that?

Whether you're a leader or a practitioner, I mean, what's, what's been your human experience of, of, of learning about the cloud, for example, shout. I think the biggest experience that I have, uh, by working in cloud transformations and with different teams is that it's, it is in fact a [00:27:00] different way of working.

You really need to change everything that you are used to and that's difficult for people. It's extremely difficult, right? It also, when I was going through something like that, I have a very similar experience personally when I set up a cloud transformation program and you know, like, like all of them, six or eight months in, it's difficult.

And you're trying to work out why it's difficult. Cause on paper, it looked straightforward



enough. Um, you know, I, I actually felt very vulnerable. In that situation, because I didn't feel like I was necessarily skilled enough to do it. And, uh, I really had to sort of very much engage with new learning, right?

Which might be awkward, you know, for, for those of us like me of a certain age, it was quite a surprise at that point in my career to have to learn something so profoundly different. Yes. And in the end, it always takes longer than you expect upfront, right? And that also makes it more difficult. Exactly that.

All right. Brilliant. So hopefully [00:28:00] that gives us a bit of a level set and a bit of an update on where we think the industry is at at the moment.

And then also every week, uh, Sjoukje is going to bring us an update on what's new in the world of cloud and maybe a little bit wider. So Sjoukje, over to you. Yes. Every week I will do some research on the recent tech innovations and pick one that I find interesting to share with you. So this week's tech innovation is about Dolly from OpenAI.

Is that Salvador Dali? No, no, no. A different Dali. A different Dali. Okay. But I think it is aligned a bit. Oh, excellent. So stock image giant Shutterstock has announced an extended partnership with OpenAI. The AI Labs text to image model Dali Two will be directly integrated into Shutterstock and Dolly 2 is an open AI [00:29:00] system that can create realistic images and art from a description in natural language.

So what, what does that, what does that give us in, in real life? Do you think like, how, how would I use something like that, like as a business or a, or as a person? There are already some use cases for Dolly. One artist is using Dolly to create augmented reality filters for social apps. There is also a chef in Miami, which is using it to get new ideas for how to plate his dishes.

Oh, mad. Yeah. How does that work? How does he, how does he actually do that? Yeah, that's a very good question. I was also thinking about that and it's not really clear to me yet. Ben Thompson wrote a very nice piece about how DALI could be used to create extremely cheap environments and objects in the metaverse.

So it can be used in there as well. And so what, what actually is it? What, what does it, what does it do? I'm trying to sort of get my head around what it [00:30:00] actually is. I'll give you an example. Yeah, brilliant. You write a description around, um, I want to have an astronaut on a horse. Okay. And then it will generate I've already got, I've got a mental image of that already.

Yeah. And then it will generate that image for you automatically. Wow. Like photo real. No, no, no. It looks like a, like a painting or art. Yeah. Oh, so it's a bit like darling. Yeah, it is a bit like it. Yeah. So it really relates to the metaphors, right? Where you create a whole different world. You can just describe what you want the outcome to be.

Right. And then, and then it sort of visualizes for you. So if I was that chef, I might go, right. I'm going to play it up. A burger and fries, but I want, I want my, I want it to be a square burger. You can also do this with, you know, five fries on the [00:31:00] side on a plate that's hexagonal. Yes, absolutely. So we can do this ourselves as well.

Let's say you are, um, very active on social media. You create posts daily and you want some images around that as well. You can just create them yourself. You can use them on your website. It's very easy to use, right? No. It sounds, I mean, it sounds, it sounds brilliant. And like when it gets more sophisticated, when you might be able to sort of either do it photo real or maybe choose a certain art style that it's creating in, it's, it's sort of, it's actually



slightly terrifying the power it might have, you know what I mean?

It's like, Hey, create me a brand new Jackson Pollock. That's just the reason why I picked this one that, oh, Shutterstock is adding this to their website because it, it means something, right? It's changing the industry. Right. No, I mean, I mean, it really does. How would you, Shutterstock is the um, it's a library of images, isn't it, that you can get.

So [00:32:00] they're offering a new service that's basically create your own image. Yes, it is. Yeah. Very significant. Yeah. Very significant. So we'll be looking at trends like this and how they might create ideas or what you might do next in terms of modernize it at the end of each show. So Sjoukje 's going to bring that to us.

But Sjoukje , I think that gets us to the end of episode one just about. We did it. We did it. Yeah. We made it through. Months of thinking about this. Yeah. And we've done it finally. And we've done it. Yeah. So we're at the end of the first episode. So a huge thanks to all of our listeners. We're both on LinkedIn and X, Dave Chapman and Sjoukje Zaal.

Feel free to follow or connect with us and let us know if you have any ideas for this show. And of course, if you haven't already done that, subscribe to our podcast. So this has been the first episode of Cloud Realities. See you in another reality next week.[00:33:00]

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