Re(AI)magine Conversations

Persistent Podcast | Episode 14

Designing Infrastructure for a Hybrid Future

Anant Trivedi and Dan Ciruli

Anant Trivedi: Hello everyone. Welcome to Re(AI)magine Conversations. This is where we have honest, grounded conversations about how technology is actually showing up inside the enterprise, beyond the migration decks, beyond the buzzwords and beyond the hype. In each episode, we sit down with leaders navigating organization in the real environment where hybrid is the reality.

It's not the exception. What's working, what's more complex than expected? And what it truly takes to scale sustainability. I'm your host, Anant Trivedi, Corporate Vice President, CIS at Persistent. Joining me today is Dan Ciruli, Vice President and General Manager at Nutanix.

And by the way, Dan, congratulations on your tremendous growth path. You have been on a record-breaking edition of more than thousand customers in a quarter. It is just amazing. Phenomenal job there!

Dan Ciruli: Thank you very much.

Anant Trivedi: And Dan, for those who may not know you, could you briefly introduce yourself and the work you focus on in Nutanix?

Dan Ciruli: Sure. My name's Dan Ciruli, as you said.

Nice to be here and thank you very much for having me. I do lead our cloud native team at Nutanix. I came in through an acquisition about two years ago. I've been around cloud native really since its inception. I spent seven years at Google, in Google Cloud and I was there when Kubernetes was introduced.

Um and, you know, my team built Google's internal API and service mesh infrastructure. As we turned our attention to commercial products and open source, we started open sourcing

technologies. I was one of the founding members of the Open API initiative. If you know what an open API spec is, you're familiar.

I also sat on the steering committee for the ISTO project. So, been part of that cloud native ecosystem since the beginning and now trying to bring it to enterprise with Nutanix.

Anant Trivedi: Well, that's wonderful, Dan. Great to have you here and just pivoting a little bit, what kind of infrastructure conversations you're finding yourself most often nowadays when there are so many hives, there are so many other things happening around, what kind of conversations you are getting into often nowadays?

Dan Ciruli: Well, we're in a period of rapid change. It's extremely dynamic what's happening in the world today and I think that there is, you know, simultaneously there are kind of three different vectors people are moving on. One is this path to modernization and the path from applications which were deployed primarily in VMs, first on physical servers or n VMs. But now things are changing as you get deployed in containers, that changes how you run them.

That's one of the vectors. Another vector is where compute is located. Because for a long time, of course, things were in data centers. Then maybe people were thinking, hey, we're moving everything to the cloud and right now I think people are realizing you have to have compute everywhere. You're going to need to use the cloud and your data centers and likely in many, many industries at the edge. So, there's that.

And then the third vector, I would say is around AI and realizing, oh, we're going to need to do AI and maybe each of those locations and that might be slightly different. So, the infrastructure conversations are how do we set up an infrastructure that allows us to properly think about those three vectors that the world is moving in.

Anant Trivedi: Wonderful. That's, that's very exciting to know. So, in today's episode, Dan, what we'll do is that we'll explore more about the cloud, you know, what cloud native really means. And in a world where the hybrid is not temporary, it's a permanent thing and we'll unpack what it takes to design for that reality.

Like, we used to talk cloud differently than what we are doing right now, right? I mean, why do you think the cloud conversations have shifted? Is it about, like the narrative about the migration has changed, or is it about the operational maturity? I mean, where are cloud conversations heading towards nowadays?

Dan Ciruli: It's interesting how it has changed during the course of the years. And I was at Google, by the way, before Google Cloud existed, right? So, I was there in the early days and in the early days it was just an experiment. But within several years, the attitude changed. And for a while, I think that in the industry, both in the vendor side, at providers like Google, Amazon, Azure, as well

as in enterprise, everybody thought they were going to move out of data centers entirely,right? The conversations became how do we migrate? How do we go cloud first? How do we go cloud only? And I think there was a period of time, maybe 2017 or 2018 until 2021, 2022, where that was where the industry was pointing. But I think that since then, most CIOs, most CFOs and really most CEOs have realized that what they need is a balance.

And the cloud does give some operational advantages. It really is very dynamic. You know, you have this ability to get access to seemingly limitless compute, storage, networking and memory. That's really, nice and lets you move quickly.

But they also have realized there's a long-term cost, right? We all know renting is more expensive than buying. And ultimately in the long run, I've had CIOs tell me, I know I can run my data centers cheaper than we get in the cloud.

And so, what they've realized is that there are various reasons why you need to do both. You know, in some cases, it might be expensive to run in the cloud. In some cases, like in manufacturing, you're automating your manufacturing facilities, you need to have stuff that's within microseconds on the network away, right? That data center has to be in the building. And so, right now we're in an area of maturity that these CTOs, CIOs, CFOs and CEOs are realizing we need to put in some framework to make decisions about where we run things.

This conversation has absolutely shifted.

Anant Trivedi: Maybe I can ask a follow up question on this. Do you think that cloud native is largely misunderstood? Like when you talk about the public cloud, it's often equated with a cloud native. Is that definition too narrow nowadays?

Dan Ciruli: Yeah, this is an area of debate, I would say.

Now personally, you know, I mentioned my background. I was at Google when we really started using the term cloud native capital C, capital N as in Cloud Native Computing Foundation, Right? And the cloud native computing foundation really defined a method of computing. You know, ultimately there are technologies involved, containers, Kubernetes and orchestration.

But fundamentally, the Cloud Native Computing Foundation is aimed at increasing developer velocity. And when I say cloud native, I'm consistently referring to that set of technologies that let developers move faster regardless of where that's running. It has nothing to do with running on someone else's computers.

You can do that on your own computers, in your own data center, right? I have friends who do that in their own homes. There are some people who say, well, cloud native means in the cloud in, you know, if I'm running on VMs in the cloud, well that's cloud native cause that is services in the cloud.

I don't use it that way. I do prefer I, I capitalize it because you know, the cloud native computing foundation, ultimately, it doesn't matter what the definition of that term is to anyone in particular. This move towards open source technologies where innovation is extremely concentrated, is happening very quickly that allow it's users to then move very quickly. You know, that's what I call cloud native. And for the purposes of my discussion and you know, you can run it anywhere. It gives you portability and it gives you an operating model that is designed to let your enterprise, your developers, move quickly.

Anant Trivedi: Perfect.

Dan Ciruli: Now I have a question for you, if you don't mind.

Anant Trivedi: Absolutely.

Dan Ciruli: Because, you know, I just described a different way of writing applications to be deployed in containers, you know, run in this modern way. It requires a change in how you write your applications, certainly in how you run your infrastructure.

We often hear this called transformation, right? This is a digital transformation. It's a digital modernization. As you see this in the work that you do there over at Persistent, what do you see that is causing people to say, yeah, we want that modern way of doing things, but we need to do things on prem. Why do you see people not moving everything wholesale?

Anant Trivedi: See, from what I have seen across the transformation programs, the cloud native applications often remain partially on-prem, like you also mentioned in a similar way, right? I mean, they often stay that way, right? For many practical reasons, you know, not because the cloud doesn't work, but more because the enterprise doesn't move into isolation.

You know, first the data gravity, let's look at this way. The data gravity and latency are real, right? The core systems like ERP, manufacturing, regulated platforms, etc. They often sit on-prem and everything that, you know, just around them like, which needs to be supported with a cloud native.

This can actually introduce a little bit of latency. It has a cost associated with it as well. And sometimes, the risk outweighs the benefits. Secondly, what I also see is that, regulatory and security constraints still matter, right? You are still operating in industries like healthcare or, or financial services, or manufacturing. Certain data, the workloads or data sets, they're required to stay on-prem, not because the cloud doesn't work, but more because of the compliance, the auditability, the sovereignty reasons, all those things still matter. And then, of course, there comes the technical debt of an organization, right? Many cloud native applications depend on legacy services like identity, or messaging, or mainframes for that matter. They originally were not designed to be on the cloud. The rearchitecting of those services takes time.

It has to have a cost associated with it as well. And finally, the cost and the operational predictability. So, for example, if you have a steady state workload, which has predictable demand, on-prem can still be more economically attractive, especially when infrastructure is already amortized.

You know what I'm saying? So, when we are really seeing this, it's not a failure of a cloud native, but more like a hybrid reality. You know and the most transformations you see they accept hybrid. They accept as a hybrid, as a face and in many cases as a long-term choice. Also, while progressively you modernize, you make it like, where it matters you deliver those things. But at the end of the day, hybrid has become more like a phase, which is a long-term phase rather than a short term or a temporary setup. But I see that AI is accelerating this whole journey.

So, maybe a follow up question with you.

Are you seeing, you know, of course the AI workloads are increasing, the infrastructure complexity is growing. Does that change hybrid conversations? Do you think that changes the hybrid conversation a little bit in some direction?

Dan Ciruli: I think it's affecting that conversation. I don't know if it's changing it; it is accelerating.

You know, we just did a survey of 1500 executives around the world and I don't remember the exact number, but it was north of 80%, maybe 85%, said that AI efforts were accelerating their containerization efforts.

So, the world has been moving to containers since Kubernetes came out almost 12 years ago. But certainly in the last five years as it's become kind of the de facto standard. That was already happening but AI is dramatically increasing the rate of adoption. It's increasing the number of new applications. People are running more applications. It's easier to write applications than ever before. So, that's happening more often.

That's one thing that there's just more containers. But the second thing is that, the AI conversation is changing. Literally the hardware that these things need to run on and that's very interesting because right now it is difficult to procure silicon. Somehow sand has become the most precious resource on earth. Sand, of course, it's been shaped into the perfect little chips, but it is very difficult.

So, customers are realizing it's going to take us, first of all, a lot of money. But second, 6 months, 12 months to procure the hardware we need to develop somewhere and run it somewhere. Eventually, we're going to run it somewhere else. Or maybe we're training models. We don't want to buy the silicon to do that, we want to do that in the cloud, but we'll be using this model at the edge, right?

So that portability is becoming more important. And right now, we talk a lot about AI applications. I think that in three years, we will not talk about AI applications. We'll just call them applications, right? And some of them will rely on an existing model that might be local, might be distant.

AI is, really, really affecting this. It's accelerating the pace at which infrastructure teams need to solve this problem. It's existential, regardless of what their industry is. Right. So, they need to modernize. Often when they modernize, they turn to experts, right? Most enterprises aren't experts in this.

So, when they start to do that, where do they hit their hurdles? Where do they run into problems? How do these programs stall?

Anant Trivedi: I feel that the enterprises don't lose momentum at a strategy level. They lose momentum at the execution level. You get everything you bought, you buy everything very, very fast. But the ownership, the funding, you know, the decision rights don't change.

So, you're not changing the, you know, the enterprise complexity. Tech is moving faster than the organization and that's where it hits the break, you know what I'm saying?

And then, the silos within the organization, right? That, kills the speed as well. Like if you have a security app or the cloud app and then the finance and you know, all those different silos, they have their own goals to optimize things.

And transformation stalls because of that. Because when you do not have an end-to-end goal of a transformation. You will fail because you will continue to achieve your own individual siloed goals. Third thing, you know, probably I would say, sometimes leaders treat hybrid, I think I mentioned this point earlier as well and I'll rephrase it one more time.

It's very important because many times, enterprises or the leaders thinks hybrid is a temporary phase. Whereas in reality, hybrid is actually a steady state. You have to accept that fact. I mean, whether you planned it for a short-lived or you then underinvest on the hybrid environment, right?

I mean, on the skills, on the platforms, on the governance, all those things are, you plan it in a temporary phase and that's where the organization starts failing. You underestimate your own culture in terms of the cloud native demands. Much faster decisions, right? I mean, shared accountability, very important for us to think about that.

And then the comfort with the experimentation, you know. Without these shifts, if this does not happen, the execution slows down pretty much everything. And because of that, the company that sustains this momentum stop treating transformation as a technology program and start running it at that operating model and a culture change. And I think that's where the success will start happening more frequently.

Dan Ciruli: So, if you're talking to a CIO today, how do you talk to them? Because this is something you do, I assume, in your day-to-day life. How do you talk to them about their hybrid strategy and devising a strategy that will lead them to success.

Anant Trivedi: Absolutely. You have to have clarity about your platform, right? If you decide what your platform is, your landing zones, your identity, your network, your security, your observability standards and make that consistent across the environment.

I mean, without that, hybrid becomes a collection of exceptions. You know what I'm saying?

Dan Ciruli: That is such a key point. I know you're in the middle, but I want to like that is such a key point. Yes. So many companies make the mistake of doing things differently in one cloud than we do in the other cloud. We do it differently on-prem. Then you forget it, you know, that was going to be temporary. That's going to be permanent. You're staffed in triplicate and you have no idea what your security posture is. Agreed. So, I think that's so important.

Anant Trivedi: And second is, I think you mentioned a very important point, which I will probably replay because that's a very important aspect.

You design for the portability, right? You talked about containerization. You standardize those containers, the APIs and the infrastructure as a code can. Still, it can shift workloads with the cost and the regulation or the risk changes. So, if you are containerizing, you know you have to design for that. That doesn't mean that every workload has to move. It doesn't mean that you know every time you think. But the business always needs those options. You know what I'm saying? So, if containerizing, if you design it with portability, I think it makes a lot more sense. And that's what we always keep advising to the CIOs, CXOs, whenever we have such conversations.

The third is like I would think about operational consistency, right? Like the same SRE practices, if you follow along in each workloads and each patterns. Same monitoring structure, standardizing those, you know, the service management in terms of the incident response. You have to treat it in the very consistent manner, whether it is on-prem, whether it is on the edge, whether it is on the cloud, you know, the hybrid fails. The whole strategy will fail if you have fragmented operations. That's where it is very important to have consistent operational practices.

Dan Ciruli: That is so huge because it's not just; we talk about app portability but think about your teams. Think about your people. You can't move a person from one project to another if they operate totally differently than that other project, because one was on-prem and one's in the cloud. Operational consistency. That's, I think that's probably the most common myth to tell you the truth,

Anant Trivedi: You know, AI is no more a buzzword now, right? It's a part of every board level conversation. So, when you are designing your workloads, when you're designing your hybrid strategy, you have to keep AI in mind.

You cannot build without thinking about AI. You build with a clean slate. You know, strong data pipeline, the policy guardrails, AI will actually amplify whatever you already are, right? If your

operations are messy, your automation will just add more chaos. So, if you have a disciplined structured approach, AI will really unlock real productivity.

So, once you attain those operational consistencies, considering the partitionizing and very other aspects, I think you still need to keep your whole design with thinking about AI as the center of it.

Dan Ciruli: Absolutely. Like on that last point, in a couple of years, we won't call them AI apps. They'll just be apps. Your AI is going to be running everywhere and you better be thinking about your infrastructure, your technologies. Not just your physical infrastructure, but everything else around the way you're managing your infrastructure today so that as you deploy applications over the next 1, 2, 3, 4 years, your infrastructure, both in terms of your hardware, your software and your people and processes are all ready for AI.

Anant Trivedi: Perfect! Dan, it's been an amazing conversation here with you. Sometimes, you know, you get so excited sharing these kinds of thoughts. It's just amazing to talk to you.

As we wrap up, one thing I think which stands out, the cloud native maturity isn't about where the workloads are, like you mentioned.

It's a very important point. But it's like how consistently you run deliberately, you know, the enterprises across the environment. It's not a compromise. Hybrid, we should not call it a compromise or a temporary phase, right? It's a design constraint. But again, at the same time, you have to build your strategy considering the long-term gains, often hybrid keeping AI at the center of everything. That's how things are shaping up.

Dan Ciruli: And if you design that right it might seem like a big chore. But it's going to let your business move faster, right? That's the thing. You get this right, you get your hybrid strategy right, you get your cloud native strategy, right, your AI strategy, right. All of those things mean your business is going to move faster. Your company's going to be more successful.

Anant Trivedi: Thank you, Dan, for sharing such a grounded perspective on building a cloud native systems in the hybrid world.

Dan Ciruli: It was a pleasure being here.

Thanks a lot for the great conversation.

If today's conversation sparked a new thinking, follow Re(AI)magine Conversations and share this episode with your network. And if there is a topic you would like to explore or a guest we should speak with, write us at **podcast@persistent.com**. Until next time, stay curious.

Re(AI)magining™ the World

About Persistent

Persistent Systems (BSE: 533179 and NSE: PERSISTENT) is a global services and solutions company delivering AI-led, platform driven Digital Engineering and Enterprise Modernization to businesses across industries. With over 26,500 employees located in 18 countries, the Company is committed to innovation and client success. Persistent offers a comprehensive suite of services, including software engineering, product development, data and analytics, CX transformation, cloud computing, and intelligent automation. The Company is part of the MSCI India Index and is included in key indices of the National Stock Exchange of India, including the Nifty Midcap 50, Nifty IT, and Nifty MidCap Liquid 15, as well as several on the BSE such as the S&P BSE 100 and S&P BSE SENSEX Next 50. Persistent is also a constituent of the Dow Jones Sustainability World Index. The Company has achieved carbon neutrality, reinforcing its commitment to sustainability and responsible business practices. Persistent has also been named one of America's Greatest Workplaces for Inclusion & Diversity 2025 by Newsweek and Plant A Insights Group. As a participant of the United Nations Global Compact, the Company is committed to aligning strategies and operations with universal principles on human rights, labor, environment, and anti-corruption, as well as take actions that advance societal goals. With 468% growth in brand value since 2020, Persistent is the fastest-growing IT services brand in 'Brand Finance India 100' 2025 Report.

USA
Persistent Systems, Inc.
2055 Laurelwood Road, Suite 210
Santa Clara, CA 95054
Tel: +1 (408) 216 7010
Fax: +1 (408) 451 9177
Email: info@persistent.com

India
Persistent Systems Limited
Bhageerath, 402
Senapati Bapat Road
Pune 411016
Tel: +91 (20) 6703 0000
Fax: +91 (20) 6703 0008

Persistent
Re(AI)magining the World

www.persistent.com