

Transcript (edited):

Debojyoti “Debo” Dutta: Wearing my optimism and imagination hat, [enterprise AI](#) will get their act together and will accelerate with better infrastructure to land gen AI workloads for the enterprise users. I absolutely believe that. And also, in order to do that, they will reskill themselves. AI will just become another workload. It's just new today, but it will become an IT workload. So today's IT manager will actually become an AI manager tomorrow.

Jason Lopez: Debo Dutta is the Chief AI officer at Nutanix. This is the Tech Barometer podcast, I'm Jason Lopez. Let's talk ECI... the Nutanix Enterprise Cloud Index. The index is a global survey of IT decision-makers on cloud computing, hybrid cloud adoption, and IT infrastructure. It's a resource to benchmark cloud strategies, to understand industry shifts and basically address the question, do I have the right infrastructure. This 7th annual index shows some interesting things about how IT is dealing with AI. One of the major findings is that 95 percent of customers say gen AI is changing their priorities and 90 percent say that security is a top concern.

Lee Caswell: That's really important for Nutanix customers and prospects.



Jason Lopez: Lee Caswell is senior vice president of products and solutions marketing at Nutanix.

Lee Caswell: How do they take these [LLMs \(large language models\)](#) from the public cloud and then basically have them run securely on private data, either in their data center or with inferencing out of the edge?

Debo Dutta: Deploying a model in a private infrastructure where your team has complete control, that solves a lot of the problems. And then your team can select the right models that kind of pass a bunch of benchmarks that your teams decide that these are the qualities that the model should have. And that can be done today.

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Jason Lopez: Debo reminds us that AI models don't just process data, they absorb and internalize patterns from it, which creates new risks that traditional security and governance measures were not designed to handle.

Debo Dutta: Once you train a model with your own data, your data is still properly governed, but if you don't govern the model itself, it can be used to reverse engineer your data in many cases, which means now you need to extend your corporate governance to models themselves.

We need to ensure that we put the right guardrails on the models for them not to violate societal norms as well as corporate governance. We in enterprise companies need to get ahead of this a little bit and track this space very well.

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Jason Lopez: The data from the ECI report includes highlights such as, 94 percent of those surveyed said they benefit from cloud native applications. Almost 90 percent said they've containerized their applications, and that proportion is expected to grow with the emergence of gen AI.

Lee Caswell: It could be that those containers are running in the public cloud. What we're expecting, right, is this onslaught, this wave of containers coming on. Our NKP products, of course, are a huge beneficiary of this as we go and offer container management to our customers.

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Jason Lopez: Caswell said more organizations are moving toward cloud-native applications for scalability, security, and hybrid cloud management. Gen AI is a major piece of this as companies rapidly adopt it. ECI findings show that only 2 percent of companies surveyed said they have not begun a gen AI strategy, but over 80 percent have one. For some background, we interviewed the leader of cloud native product management for Nutanix, Dan Ciruli, who talked about the foundational principles that made containers essential in the first place. He said cloud-native computing enables companies to quickly make and deploy software.

Dan Ciruli: There are lots of other benefits too. As it turns out, it can be much more scalable. The cloud-native computing really started with companies like Google and Twitter and Airbnb, early web-scale companies who were building software in a new way and realized that running on commodity hardware, and that was very important at the time, running on standard Linux boxes, Google was able to build the most scalable, performant, and reliable piece of software anyone had ever seen. It was before we created this term cloud-native computing, but it was containerizing applications so they can be deployed very reliably, and then using some sort of container orchestrator to put those on compute nodes without the developer ever having to get involved in using automation. Cloud-native computing, fundamentally, is a set of technologies and practices that let you ship software faster.

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Jason Lopez: Ciruli said cloud-native computing really started a little more than a decade ago with the project Kubernetes. It has turned out to be the de facto container orchestrator platform.

Dan Ciruli: For the first five years or so of its existence, it was almost a science project, but at some point, a tipping point was reached, and as an industry, people decided this is the new way to write applications, and for the last five years, virtually all new applications are being written to be deployed this way. Well, gen AI, really, AI has been around for quite a while, but generative AI is new. I just said all new applications are written to be deployed in this cloud-native fashion, which means all the gen AI applications, virtually everything that's being done in this space is happening in Kubernetes. It's very scalable. It has been happening in the last several years, so kind of by default, all these new applications are written to run in containers

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Jason Lopez: Before containerized applications... it was the era of virtual machines. Enterprises used tools in a VM ecosystem to handle things like application development, networking, and security.

Dan Ciruli: Those are the kind of tools that have spent 20 years developing in the VM ecosystem, a vast ecosystem of tools to help people understand the storage, the networking, the security, the health of their VMs, and so now there's a whole second set of tools that do those same things for these container-based applications, and so I think, again, that 80% of people are saying, hey, help, now we've got a much more complicated landscape than we used to, so we need tooling to help with that.

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Jason Lopez: One more highlight from the ECI, 52 percent of organizations said they're going to have to basically increase training in order to meet the demands of deploying and managing AI.

Lee Caswell: Makes sense, right? You've got new AI hardware elements for GPUs, right, or even CPUs. You've got new LLMs, and how do you take those new LLMs? Our NAI product, right, terrific for that, so a great opportunity now to take these new trends and translate those into actual prospects and sales.

Jason Lopez: Debo Dutta talked about the skills gap regarding AI and said it depends on a person's role. For technical professionals like software engineers, it could mean using AI to help with software development, or learn more AI principles and how systems function and integrate into larger architectures.

Debo Dutta: If you're not a computer scientist, you still need to learn AI to do your current job better, and that involves techniques like prompt engineering. How do you prompt AI to write better emails, to write better summaries of the context that you provide, and so I believe that there's a whole new set of skills that can be learned by everybody, whether somebody's technical or just trying to use AI to be more productive.

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Jason Lopez: And as the Chief AI officer, he's witnessed the learning curve firsthand, with a group of engineers who knew machine learning though not the new gen AI.

Debo Dutta: I built a team from scratch where we trained everybody. We all learned together the basics of gen AI, but we all knew how to build systems and we kind of pushed the envelope on the job. We all picked up gen AI skills very rapidly within the company. Now we are proliferating this skill set across the board. We have now a team building a chat bot for our SREs that was all built, you know, homegrown.

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Jason Lopez: Debo says as Nutanix's engineers are getting better at AI through in house training, there are excellent resources outside of the company.

Debo Dutta: There is a lot of information and especially courses available for both engineers and non-engineers to really get proficient with AI. There are generic courses, if you Google generative AI for everyone, which I highly recommend on Coursera, that would be a great place to start. Then there are courses specifically for prompt engineering that will allow anybody to just pick up prompt engineering and start using the current AI models and be very productive at their job, whether somebody's an accountant or an EA or a writer or just a middle school student like my teenager. Everybody can get productive.

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Now, when it comes to engineers, there's a plethora of courses. If you look at any top-tier US university today, their bachelor's and master's program, you will see a lot of introductory courses that start from a very simple material in the space of AI and go very advanced very quickly. So the next generation of engineers are being minted as we speak to fill that gap.

Jason Lopez: Debo Dutta is the Chief AI Officer for Nutanix. Dan Ciruli is the head of cloud native product management for Nutanix. Lee Caswell is senior vice president of products and solutions marketing for the company. This is the Tech Barometer podcast. I'm Jason Lopez. Thank you for listening. Joanie Wexler's article which reports on the Enterprise cloud index, Study Shows Big Uptake of Enterprise AI and Cloud Native Technologies, is at the The Forecast website. You can find it at theforecastbynutanix.com.