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The Deloitte On Cloud Podcast

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Title:	**To understand and optimize your cloud costs, turn to FinOps**
Description:	As cloud adoption has soared, cloud costs have risen steadily, which has become a major concern for the C-suite. In this episode, David Linthicum talks with Deloitte's Nikhil Roychowdhury about how FinOps can help control and bring transparency to cloud costs. For Nikhil, FinOps is a collaborative, cross-functional effort that involves breaking the cost-management process into manageable chunks, choosing the right tools for the problem, and building trust and alignment among stakeholders.
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David Linthicum:
Welcome back to the On Cloud podcast. Today on the show I am joined by Nikhil Roychowdhury, a principal with Deloitte Consulting's financial services practice specializing in cloud strategy. How're you doing today, Nikhil?

Nikhil Roychowdhury:
I'm doing great. Great, David. Thank you. Glad to be on.

David Linthicum:
Yeah, absolutely. I was really looking forward to this conversation. Number one, I was happy to see we have some FinOps strategy experts in the firm because we're always needing those, and kind of just talking about the evolution of this. I mean, I got into this early on when cloud computing was kind of in its infancy. Even back in 2003 you weren't dealing with SaaS. We were always trying to find the way in which we could provide the business value for this technology, some sort of a way to define it in using an approach and methodology where we have the metrics to kind of determine what the value is, what the cost savings in.

People were saying that this is going to be CapEx versus OpEx and all these sorts of things, and at the end of the day, it wasn't really about that. It was a very complex set of metrics that we needed to understand in terms of how the value is being determined that's coming back from cloud and also the ability to kind of push that information back into cloud operations so we can have more efficiency and optimization in how we're leveraging cloud computing. And, of course, I'm talking about history right now.

Then we leverage—we created this thing called the cloud business office, the CBO, which in essence was the early kind of start to what FinOps is, that's where the accountants lived, and they had the deals, things like that, but they were still using Excel and PowerPoint to monitor these things. And, kind of now we're getting in today where this is the topic du jour was getting into efficiency and the ability to get more value out of the cloud-based implementation. That's why I'm excited to have this conversation with you. So, before we do that, catch us up. What's your story? How'd you come to the firm? What'd you focus on, and what are you doing right now?

Nikhil Roychowdhury:
Yeah, great. Well, thank you for—I guess that, first of all, I've been listening to your podcast for a while now and I'm really excited to be on as a guest. A little bit about myself. So, I've been in consulting pretty much my entire 20-plus year career. While having spent the better part of about 10-plus years as an engineer for building apps, I've developed a keen appreciation for technology and learning about all the different skills required, not just to design and build apps, but to actually run these apps efficiently. So, I think that background is what got me sort of hooked on the cloud and the rapid pace of innovation because it really enabled engineers to think differently in terms of the art of the possible when they're designing and building their apps.

As you know, David, the rise of DevOps started to bring this much-needed alignment that we developers, and the infrastructure teams that deploy and run these apps, who have to worry about things like computing power and memory and storage, and that was all new and exciting for me and really got me on this journey to learn more about the business of IT. I've been at Deloitte now for a little bit over 13 years, and I sit within our cloud strategy practice based here in New York.

At the firm, I spend a lot of my time advising clients on how to think about new operating models for the cloud, helping them develop financial cases for cloud adoption that are focused on really enabling business outcomes. As we started to see more of our clients embracing the cloud, which is great, the conversation has started to shift from a theoretical business case to, "Okay, we're in the cloud now, can we talk about the value we're supposed to get?" And answering these types of questions was really the trigger for me that got me hooked onto this whole idea of FinOps.

David Linthicum:
So, catch us up; why is FinOps so important now? Why are we focusing on it? I hear a lot about it in the press and the marketplace, talked about it here in knowledge short podcast awhile back, and it seems to be just kind of accelerating tremendously the amount of importance it has for the business. How is this coming about?

Nikhil Roychowdhury:
Yeah, I think the rise of FinOps as a discipline is a natural response to the increasing prevalence of the public cloud that's taking on a bigger and bigger role as kind of a platform on which enterprises can innovate and scale their businesses. We saw massive adoption—we saw massive explosion in cloud adoption during the pandemic with many of our clients making very bold and aggressive moves to really minimize their data center footprint and drive the majority of their applications to the cloud. In the interest of getting to the cloud as quickly as possible, a good chunk of these apps ended up being literally lifted and shifted from the data center to the cloud without a whole lot of tinkering to really see if there was a more optimal way to run these applications.

While the practice of kind of what I'll call cloud cost management has been around for a while, I think what's changed now is that we are at the point of true scale where cloud costs are starting to get noticed by CFOs as a material line item on their balance sheets. Questions are starting to get raised on what's truly driving these costs and who should own these costs. So, the idea of FinOps, in my opinion, has gained a tremendous amount of traction in the last couple of years as a movement that is based on bringing kind of financial accountability to your cloud spend by suggesting a more collaborative cross-functional approach across various teams like engineering, finance, procurement, business executives to bringing in a transparency and order to the highly-complex ways in which these individual clouds and services are consumed and priced.

So, as we see our clients starting to embrace even not just one cloud but multi-cloud, a topic I know that you care deeply about, David, the idea is to start building muscle around three key questions. So, first is how do I even navigate the nuances of pricing, the complexities and pricing across different providers? You really need folks who understand how cloud costs, reservations, and discounting work across different categories of services, and these are actually evolving every day, so it gets even more complex.

Second, how do I make sure that these costs are made visible and transparent to the teams that are responsible for incurring them in as close to near real-time as possible? So, you can get ahead of unusual spikes in spend by understanding the root cause of them now rather than waiting for your month-end close, et cetera. Third, and I think this is really key, it's not just about driving cost out of the platform or finding the most efficiencies. It's really about making

informed decisions on technology choices that can help your business drive growth. So, those are the thoughts of our practice. They're not really—we like to say that it's not about cost; it's really about value.

David Linthicum:
So, we're talking a lot these days around the supercloud and the metacloud and the ability to have this cross-cloud stack and cross-cloud services where we're kind of moving things away from everything being native, in other words, not using some native cost-monitoring tools, but at the end of the day, if we're going to build a multi-cloud, it's going to have to expand cloud. Same with security and governance and monitoring and management. And FinOps, we always say cost monitoring's going to be part of the tool, sometimes it's stuck in governance, we called it cost governance, and sometimes we put in some of the operational area, but it's a discipline unto itself, and the thing is, as we build these multi-cloud environments, they become uber complex as we're dealing with 10,000 services at a time.

They all bill differently, all different terms of service, they're all used in different ways, and it just became so complex there was no way to track it. So, FinOps kind of grew up around, number one, we need to have some way to monitor and manage these systems so we can have accountability, so we can show back some chargebacks, we're doing budgetary discipline and all the things that come with running the business, but also define who's using what and for what purpose and how much value is being returned to the business, and do so at the nth degree of metrics in doing that.

Then also getting into this concept I keep hearing is FinOps Observability where we're going to have true understanding of what all this data means. We're not just monitoring information, look at what this person spent on storage systems last month and things like that, but the ability to kind of understand where the trends are occurring, what those trends actually mean, and also the ability to have planning and demand planning based on historical information that's in our FinOps system, if it's available.

So, this becomes kind of a key dashboard where I think that someone's CFO and CEO would be interested in seeing and the fact that we can determine what's being used for what purpose, for what resource in the organization, and then finally—and we need to answer this question, and I think FinOps does this, the ability to kind of understand how much value is coming back to the business, which is a complex answer unto itself.

Nikhil Roychowdhury:
Exactly. We've seen a lot of the maturity in the discipline of—in DevOps, which is really a cultural shift that organizations had to make, and I think the natural sort of evolution of that is starting to get into some people call it DevSecFinOps, but I think the whole idea of FinOps is really built on the concept of DevOps, which is really around collaboration and real-time decision making. So, having the tools, whether it's observability metrics, cost metrics, et cetera, in place to actually be able to drive that kind of decision making, really is super important.

David Linthicum:
So, you're talking to a client for the first time and they're asking the question, "How do we get started in a legitimate FinOps program, what are the steps we need to take to start moving in this direction?" Maybe they're moving into multi-cloud, maybe they're just trying to get their hands around a single-cloud deployment. What advice do you typically give?

Nikhil Roychowdhury:
The first thing I'll say to my clients, David, is that it's never too late to start. Clients will ask me like do I need to reach a certain level of spend before I need to start to sort of worry about FinOps and how to get this spend under control? There isn't really a good answer. You should start as soon as you can, as soon as you think the right time is, whether that's when you're just getting started planning your cloud—that adoption journey, or you're already—you've been in the cloud for the last several years and you just want to be more efficient. There is no magic threshold for cloud spend that signals that you need FinOps. I'll say that is the first thing I'll say to my clients.

The other thing that I like to talk about is that the FinOps Foundation start—they use this term crawl, walk, and run that I really love. I think it really helps to break down the FinOps lifecycle into manageable chunks so that you're building out your capabilities at your own pace rather than trying to tackle everything at once. It seems like a big kind of—a big sort of problem to solve, but I think the great job that the Foundation has done is to lay it out in terms of incremental capabilities that you can build over time. So, if you haven't thought about FinOps yet, maybe it's a good time to learn how to crawl first, and the great news is that you don't need a massive team to actually do it.

The capability framework that's now become sort of an industry standard is broken into three what I'll call lifecycle stages. First, it's really around inform, and informing is really all about providing visibility and transparency of your spend. You talked about dashboards. That's where all this comes in, providing the visibility to the application teams on what they spend and why. The second stage is really around what we call optimize. In this phase, you start building capabilities and implementing tactics to optimize your cloud spend. This could be things like right-sizing of VMs, basically shut down unused instances, et cetera. Tactics around how to get better discounts through reservation strategy.

Finally, the third piece of the lifecycle is really what we call operate, and in this phase you begin to define the operating model. Who are the key stakeholders you're going to need to seed your FinOps team? What are their motivations? You can also start at this phase to start defining better governance over your spend. You can be more proactive rather than reactive. You should also start thinking at this stage about how you can actually start to think about an automation for certain—like for certain spend optimization actions. So, think of this inform, optimize, and operate cycle as a rinse-and-repeat cycle. Each time you go through it, you're building additional muscle and starting to walk and then eventually run.

This is really the part, David, that I really enjoy advising my clients on, depending on where they are in the journey. Finding the right entry point across this inform, optimize, and operate cycle is really fun because you get to see immediate value by building a new muscle and things that they didn't do in the past. It could be something as simple as just setting up a budget that has alerts when you reach certain thresholds of spend.

David Linthicum:

So, everybody loves tools. I know there's a bunch of FinOps tools, and I know they do very different things and very different approaches. What are the significant tools out there, and what should we consider if we're moving into a FinOps program, and how do we move from our requirements to actually selecting the proper tool?

Nikhil Roychowdhury:
This is also one of the very first questions that clients tend to ask me, like what tools should I implement to do FinOps? And what I tell them is I don't believe there is a single tool in the market that's going to be your magical FinOps tool. The providers, like you said, are beefing up their own FinOps capabilities, making them available through their consoles. There's an ever-growing ecosystem of third-party tools with increasingly sophisticated capabilities, whether it's a niche tool to optimize your container costs or tools that help you to optimize or to automate the process of managing your commitments and reservations. You also see a lot of clients who take a build-it-yourself view, and they engineer their own tools to meet their needs.

So, there's no right or wrong answer. We actually advise our clients to take a tool-belt approach depending on what the problem is that you're trying to solve. Think about the right tool or tools that can help you to accomplish that goal. The tools are never going to be a magic bullet to solve all of the problems that you may have. You really need to have the right operating model in place to take advantage of the capabilities that any of these tools actually have.

David Linthicum:
Yeah, and the advice I always give, understand your requirements and back the tool into your requirements in a logical way, and also understand how the thing is going to change and grow over time and how, therefore, your tool should really kind of adjust to that. And the reality is that you just kind of hit the nail on the head, there's no one tool that solves this problem. It's typically going to be a suite of tools. We're not going to solve every problem with a tool, and so, therefore, we're going to have to create integration strategies and orchestration strategies that may be around and between these various tool providers, but that's to be expected.

But the big thing is don't start throwing tools at the problem until you know exactly what you're doing. So, people, operating models, the stuff that actually makes this work, but the reality is this doesn't work unless there's a culture around that's able to operate this correctly and they're set up in such a way to be successful. What's your guidance there?

Nikhil Roychowdhury:
I think if you look back at kind of the way the discipline or the movement around DevOps kind of was, basically, when it started, it was at first a lot of friction between your development teams, your infrastructure operations team, and it took a while to start to overcome that. FinOps is really about collaboration and trying to enable certain outcomes that benefit the enterprise by advancing local collective understanding of how cloud economics really work and how best to derive the value for your cloud investments. What I've observed to be a successful model is when it is a small central team that has been empowered to be an independent advisor to the engineering teams as well as to your finance and even to procurement.

It's less important in my mind where this team sits in basically the enterprise. What's more important is that this team is empowered to build a culture of cost and value awareness across the enterprise. By doing simple things like—I shouldn't say simple because it's often quite difficult, but to do things like building key sort of metrics for how the organization is going to report on cloud spend, how the organization is going to provide transparency to individual teams on their usage of the cloud, how to determine the best ways to allocate costs through thoughtful tagging and enabling policies, and even advising on architectural changes to the applications to make them more efficient.

It's also helpful when you're thinking about developing a FinOps operating model to think about the customer personas that the FinOps team actually serves. These are your executive teams, starting with the C-suite, the CEO, CTO, CFO, CIO, et cetera; your product and application owners and architects who are making the architectural decisions that influence your spend, finance and procurement who care about things like forecasting and budgeting and purchasing best practices, et cetera. In my mind, this small central team should have a mix of skills that then cater to these various personas to start building trust among them all. So, it's a lot of kind of making sure that you start to build trust incrementally and start to get alignment form this broader stakeholder group.

David Linthicum:
Yeah, and you've got to remember even though there's accountability that's part of this, this is not a "Let's throw accounting restrictions on the system." This is about getting a better handle and understanding how you're spending the money, and also putting guardrails and safeguards around how you're spending the money and always kind of really kind of focusing on that we're bringing value back to the business in terms of soft value, creating innovation, creativity, the ability to support that, which cloud is able to do, and also the hard values, the ability to kind of save a buck because we're leveraging reserve instances versus always in real-time accounting for these systems.

That's something everybody should consider. It's not a threat; it's an opportunity to do everybody's job better and also have more metrics that put a light—a shining light on what you're doing as you build your cloud-based systems, the ability to kind of get the value metrics that you need to understand what you do and how it can be aligned to value within the business. So, where's this going? What's the future of FinOps? Where are we going to be in three, four, five years?

Nikhil Roychowdhury:
So, I may be a little bit biased here, David, but I think FinOps is definitely here to stay. There's so much creative thought happening in the space, and the FinOps foundation is really the anchor point around which a community of practitioners have found their voice for the first time really, just in the last couple of years, to share how they solve the particularly challenging problem that can be applied by others in their own contexts. I think we're currently at the inflection point where the conversations are going to start to shift from, "Why my cloud spend so high?" to "How do I get the most value out of my cloud spend to drive growth and give my customers the best experience I can?"

There's this common misconception which I think unfortunately still exists today that somehow the cloud is perceived to be a cheaper alternative to the data center. And it's really—that's not the case. It's really about how you use the cloud. So, increasing cloud spend is not necessarily a bad thing if it's actually driving increasing—whether it's customer acquisition or increasing revenue, et cetera. So, I'm very excited about the space. I have the privilege of spending a good deal of my time with my clients, learning about their individual challenges and collectively try to create essentially creative solutions to those. So, I think this is here to stay. We're just at the beginning. There's going to be a lot more exciting developments to come.

David Linthicum:
Yeah, I couldn't agree more with you, and I think there's a lot of subdisciplines that are starting to emerge in the cloud. FinOps is definitely one of them, and so there's operational, certainly monitoring management observability, of course observability's part of FinOps and even security as well. There's security and the ability to have application development, the ability to automate all these various systems, lots of other things come into it, but the core discipline that I think people need to get ahold of right now is going to be FinOps, your ability to understand what you're doing and how that's impacting the business.

So, I think there are many organizations out there that are leveraging cloud computing, specifically multi-cloud, that are flying blind as to that. They know how much—how much resources they're using, and they read their bill, but they have no idea what it means and how it applies to the efforts that they'[re moving forward. Unless you're able to answer those questions, it's going to very difficult for you to move forward. So, where can we find more about your organization, yourself on the web?

Nikhil Roychowdhury:
So, if you search for cloud financial management on the Deloitte public site, you can find out all about the practice, learn about our capabilities and our offerings, and that's the best place to go.

David Linthicum:
This is important stuff, guys. In other words, we're moving in the cloud, spent the last 10, 15 years depending on when you started moving workloads into the cloud. We're at about 40 to 45 percent penetration based on what your enterprise is doing, and in many instances, like we just mentioned, we have no idea how much it's costing us and where we're incurring the expenses. And the big one is how we're mapping this back to value within the business so we can show the stakeholders as to what impact this technology stack is doing. I don't think we're good at answering that yet. We're certainly better doing cloud, but we have to figure out how to answer that.

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